



DEPARTMENT OF EDUCATION,  
COMMUNICATION & LEARNING

# ENGAGEMENT AND SENSE OF COMMUNITY IN A DISTANCE CIVIC ORIENTATION COURSE

Design of a Communication Space for Newly  
Arrived Immigrants

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Thesis:	30 higher education credits
Program and/or course:	International Master's Programme in IT & Learning
Level:	Second Cycle
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Supervisor:	Mikaela Åberg
Examiner:	Linda Bradley
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# Abstract

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**Purpose:** The purpose of this research is to a), through collaboration with end users, develop a communication space in a distance civic orientation course, and thus b) investigate what aspects that may be important to include in this space in order to facilitate the learners' sense of community and thus possibly their engagement in that course.

**Theory:** For this capstone project, the Design Thinking method and its human-centred approach is used as a framework to continuously relate the progression of the project back to the users and their needs.

**Method:** The Design Thinking method was applied throughout this project as a framework for the progression of each step of the design. Interviews and questionnaires were used for data collection, as well as observations to some extent. Thematic analysis was applied for the data analysis. Continuous collaboration with the participants of the study led to an iterative process and an early prototype for the communication space was developed.

**Results:** Results of this study indicate a need for implementation of both synchronous and asynchronous communication in the distance course, as well as the use of different media in the discussion forum in order to facilitate interactivity and thus enhance learner engagement. Early establishment of clear requirements of learners and teachers is important in regard to learner and teacher satisfaction rates. Generally, to include diverse ways of communicating seem to facilitate the development of a sense of community as well as learner engagement and active participation.

## Foreword

When I applied to this master program, my aim was to develop my knowledge of educational technologies and how these can influence the lives of marginalised groups of people. With my background in International Development, I hope to combine those experiences with my new knowledge from this master, and later work with making education more accessible for those who need it the most. This master thesis project has been very interesting and exciting to carry out, and I am very grateful for the opportunity to conduct it within my area of interest. These past months have made me more certain of my desire to develop digital solutions for accessible education.

First and foremost, I would like to thank my supervisor Mikaela Åberg for her invaluable and continuous support throughout this project. The constructive feedback as well as insightful discussions have immensely facilitated my work with this thesis. Secondly, I am very grateful for the opportunity to collaborate with the organisation that is developing the new civic orientation course. The staff, and especially my supervisor Jakob, were of course vital for the progress and quality of this project. Lastly, this project would not have been possible without the participants, so a major thank you to those who took time to provide me with their valuable thoughts and opinions!

A handwritten signature in dark ink, appearing to read 'Hilda Haqvinsson', with a long, sweeping horizontal line extending to the right.

Hilda Haqvinsson

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# 1. Introduction

In the last 10 years, there has been an average of 131 000 people (Statistics Sweden, 2021) who, for one reason or another, immigrate to Sweden every year. When it comes to asylum seekers or refugees, there are a number of programs and steps they will be enrolled in, aimed to create an integration as smooth as possible for them. Via the Swedish Public Employment Service, the immigrants will embark on an Establishment Program. In this program they will for example be enrolled in Swedish language courses as well as participate in activities aimed to assist them when attempting to find employment (Swedish Public Employment Service, n.d.). They will also attend a course in civic orientation, which purpose is to provide the immigrants with knowledge about Swedish culture, history, laws and norms, as well as present information about the health- and school system, among other things.

The civic orientation courses are run by the regions and municipalities of Sweden, and are enforced by a law first introduced in 2010. This law states that all newly arrived immigrants who come to Sweden should be offered to participate in a civic orientation course (SFS 2017:584). The immigrants who come to Sweden as asylum seekers or refugees are rather easy for the regions and municipalities to reach as they normally go through for example the Establishment Program. According to the County Administrative Board (Länsstyrelsen, Kalmar Län, 2020), it is however more difficult to reach those who qualify as being in the ‘extended group’ – meaning those who have not necessarily fled to Sweden, but rather chosen to move here for reasons such as work, studies or a romantic relationship with a Swedish citizen. They do not usually integrate through state run programs, and may not even know that opportunities such as the civic orientation courses exist. Additionally, they might not have the time to attend the classes every week, as they often already have a full-time occupation such as work or studies.

An organisation working with civic orientation courses, situated in the Southwest of Sweden, considered this issue, and thus sought means for starting a project called ‘Digital Participation’ in 2019. This project includes several smaller incentives aimed at assisting immigrants with their digital integration, improve their digital literacy and make sure that everyone in Sweden is equal in regard to their digital lives. One of the incentives in this project is to create a civic orientation course that is conducted completely as an online distance course. Content and outcomes are the same as the ‘normal’ civic orientation courses, but no weekly classes will be held, and learners are expected to manage their studies independently. One of the reasons for creating this course is to also be able to reach those in the ‘extended group’. As these persons normally already have a full-time occupation, they could instead attend this online course and study more independently.



There is a large body of literature surrounding distance courses; the benefits as well as challenges that come with them. Some of the main areas of interest within this literature are student engagement, active participation and sense of community. Many argue that in order to conduct a successful distance course, learners need to be actively participating and engaged in the course (Bolliger & Martin, 2018; Martin et al., 2018). Furthermore, researchers claim that it often is positive for learners to develop a sense of community with the other learners of the course in order to stay engaged and motivated to continue the course (Angelaki & Mavroidis, 2013; Bolliger & Martin, 2018; Caspi & Blau, 2008; Hrastinski, 2008; Phan et al., 2016). Within this lies somewhat of a paradox, as engagement and active participation can be difficult to define and measure, meanwhile a sense of community has been argued to promote continued engagement and active participation.

Additionally, while there is a substantial amount of research conducted regarding communication, engagement and sense of community within distance courses, not as many studies have been conducted with newly arrived immigrants as the target group of these courses. With this in mind, this capstone project aims to, through close collaboration with newly arrived immigrants, international students and teachers, investigate how a communication space in the new civic orientation course could be developed with the aim to affect learners' sense of community in that course. It will attempt to lay the foundation for further investigations of whether a facilitation of establishing a sense of community would consequently affect learner engagement and active participation. Furthermore, this thesis will add to the existing research regarding communication, sense of community and engagement within distance studies, with the certain scope of newly arrived immigrants as the target group.

## 1.1 Research purpose

The purpose of this research is to a), through collaboration with end users, develop a communication space in a distance civic orientation course, and thus b) investigate what aspects that may be important to include in this space in order to facilitate the learners' sense of community, and thus possibly their continuous engagement in that course.

By application of the Design Thinking approach, a prototype for a communication space is developed with the assistance of representatives for the target group of learners for the new course. The users have been involved through every step of the process, and have thus assisted the progression of the project. As this research is part of a larger project developing the new civic orientation course, only the foundation of the work surrounding the communication space is conducted. Further developments need to be refined and evaluated before the communication space can be implemented in the course.

## 1.2 Research questions

This capstone project will, through collaboration with end users, aim to develop a communication space in a distance civic orientation course for newly arrived immigrants. Through the development and initial testing of this space, this thesis will aim to investigate:

- What type(s) of communication is (most) preferred when participating in a distance civic orientation course?
- What features are important to include when developing a communication space in a distance course in order to encourage learners' engagement in the course?
- What aspects do learners consider important in a communication space in relation to support of the sense of community in the course?

## 1.3 Outline of thesis

This thesis will begin with a brief contextual background of civic orientation courses in Sweden. A short historical background of when and why these courses have been implemented is explained in order for the reader to gain an understanding of the context and importance of this research project.

Following the background comes a literature review, where previous research regarding distance courses, communication, engagement and integration is explained, compared and analysed. The literature is divided into sections of different type of interaction in distance courses; learner-instructor, learner-learner, learner-content and learner-interface interaction. Towards the end of each section there are also examples of how these different interactions are evident in digital incentives aimed to specifically migrants and refugees.

The Methods section begins with a description of this project, followed by a description of the Design Thinking approach. After that comes an explanation of which data collection and data analysis methods that have been applied in this project. This section will also describe the sampling of participants that were part of this research as well as ethical considerations for the project.

Later on, the Design Procedure section will provide a detailed account of the process and progress of the research project. What was conducted in each step of the Design Thinking process, how the steps are related to previous research and how the project progressed. Following that comes the Discussion, where the results will be compared and discussed in relation to previous research. Lastly, the Conclusion will summarise the results of this research project, as well as discuss limitations and need for further research and developments.

## 2. Background

### 2.1 Civic orientation courses in Sweden

Civic orientation policies have been introduced in Europe since the late 1990s. In Sweden there has been an active discussion around state-run civic orientation courses since the 1960s (Ds 2012:24). For a long time, the civic orientation courses were combined with the Swedish for immigrants-language courses, but during the early 2000s the courses were separated as it was argued that the Swedish course should teach only the Swedish language. Additionally, the Government Offices (Ds 2012:24) states that it was also decided that the civic orientation courses should be offered to the newly arrived as early as possible and in their own language. The aim of the civic orientation courses is to facilitate the integration of newly arrived, provide them with knowledge about their rights and responsibilities, Swedish laws and norms as well as general knowledge of the Swedish society and culture. By offering civic orientation courses, the immigrants can obtain ‘citizen-like’ skills, such as the local language, the country’s history, culture and rules, as well as norms and values present in their new society (Wallace Goodman & Wright, 2015).

In 2010 a new law came into effect stating that all newly arrived immigrants in Sweden should be offered a course in Civic Orientation (SFS 2010:197 7§). This law has since then been updated and the latest version came into effect 2018 (SFS 2017:584). All immigrants who arrive to Sweden as refugees or asylum seekers are now offered to enrol in a civic orientation course as part of their establishment program. The Swedish Public Employment Service offers an establishment program where the newly arrived participate in a few courses and activities in order to facilitate their integration in Sweden (Swedish Public Employment Service, n.d.). By actively participating, the newly arrived gain knowledge about life in Sweden and receive some financial compensation. Most immigrants are offered to take the civic orientation course in their own language, or if that is not possible, in English, or Swedish with a translator.

Evaluations of the civic orientation courses are conducted yearly, and they receive overwhelmingly positive results. Participants claim that the courses are important, interesting and fun. In an evaluation from 2016 conducted by the Gothenburg office, the results showed that 92% of the participants enjoyed the course overall, and 93% considered the course to be important or very important for those who are newly arrived in Sweden (Integrationscentrum, 2016). Many of the participants mention that the information and knowledge they gain from the course is very valuable, but also that the teachers play a significant role for their satisfaction. In this organisation, many of the teachers are immigrants themselves, and can thus relate well to the participants and their particular situations. From the evaluations it is clear that the dialogue and relationship that the participants can develop with their teachers are very important for the participants’ satisfaction and knowledge outcome. Similarly, in an evaluation conducted by the County Administrative Board in 2016 the participants state that they value

the knowledge they have gained from their civic orientation course. They mention that both the overarching information about how different organisations and systems in Sweden operate, and more general knowledge about everyday life, is crucial when integrating and settling into a new life in Sweden (Länsstyrelserna, 2017).

Initially the law regarding civic orientation courses were only affecting a certain group of immigrants, mainly those who arrived as refugees or asylum seekers. However, in 2013 there was a change to the law, which widened the target group and sought to include a larger population (SFS 2013:156). With this change, civic orientation courses should now also be offered to those who have moved here for other reasons; such as work, studies or a romantic relationship to a citizen (Ds 2012:24). The County Administrative Board (Länsstyrelsen, Kalmar Län, 2020) reported that municipalities have long expressed difficulties reaching people in this extended target group. It is difficult to identify them as they do not go through any state-run programs and there is no common platform to reach them through. Additionally, it can be difficult to motivate people from this group to enrol in civic orientation courses as they are not mandatory nor render any financial compensation.

Previous reports have shown an increased interest in offering civic orientation courses fully conducted online (Länsstyrelsen, Kalmar Län, 2020). This is argued as an attempt to be able to provide courses in the languages that are less common in each municipality. If these languages were to be offered in a distance course, they could thus be distributed on a national level. Furthermore, it can be argued for as an alternative to the immigrants in the 'extended' group that might not have the motivation, or time, to participate otherwise. By conducting the civic orientation course completely online with few mandatory meetings, immigrants who for example already have a full time job during the day, could have the possibility to still complete the course by studying the content in their own time. However, these distance courses would not be suitable for everyone. As they are to be conducted independently and more or less without any mandatory meetings, it is important that the participant has adequate computer skills and feels comfortable as well as confident that they can complete the course successfully (Länsstyrelsen, Kalmar Län, 2020).

### **3. Literature Review**

This literature review will give an overview of previous research in the area of distance courses, engagement, sense of community and integration. It is divided into five parts, starting with a brief overview of distance studies, including the benefits as well as disadvantages of them. After that come four parts organised by type of interaction within the distance courses: learner-instructor interaction, learner-learner interaction, learner-content interaction and learner-interface interaction. Examples and previous studies of how each type of interaction also plays a role in digital initiatives aimed at migrants and integration are included at the end of each

part. These topics are all closely linked to this current research project, as the purpose of the study is to investigate how a communication space in a civic orientation course might support engagement and sense of community among newly arrived immigrants in Sweden.

### 3.1 Distance Courses

As technology and our global connectivity constantly improves, courses conducted completely online, without any physical meetings, have increased in popularity in the last decade. Bolliger and Martin (2018) state that due to its flexibility and convenience to learners, distance education is often seen as an appealing educational option. The ability to study and complete assignments whenever it suits the learner, is something that might be very interesting, and sometimes crucial, for many people.

The number of available online distance courses have grown exponentially lately, and so has the number of registered students. Although, simultaneously as the registration rates have increased immensely, so has the number of students who do not complete their online studies (Kurucay & Inan, 2017). It is a common fact that completion rates of distance studies can be very low (Halkic & Arnold, 2019), and much research has been done investigating why that is as well as what could counteract it. One common factor that often is noted, is the lack of social presence and feelings of connectedness to other participants and the instructor in the course (Angelaki & Mavroidis, 2013; Caspi & Blau, 2008). Related to this, many scholars also highlight the challenges regarding learner engagement and the risk of learners losing motivation to continue the course. Consequently, much research has argued for the importance of establishing a sense of community, high quality communication and learner engagement, while simultaneously raising the challenges of establishing exactly those aspects.

One way of facilitating high quality communication and learner engagement is through different types of interactions. Bolliger & Martin (2018) mention three types of interactions, first expressed by Moore (1989), that foster student engagement and their interest in online learning environments, thus consequently leading to higher educational outcomes. They state that learner-instructor, learner-learner, and learner-content interactions are important aspects to focus on when attempting to create a distance course and environment that will foster students' engagement and active participation. In addition to these three types of interactions, Kaynode (2018) also mentions a fourth one; student-interface interaction, that could play an important role in distance courses.

### 3.2 Learner – instructor interaction

There seems to be a general agreement that the instructor plays a crucial role in the delivery of a distance course. Many studies have argued for the importance of clearly stated expectations

and requirements, timely feedback and an active tutor that makes the students feel seen and important (Angelaki & Mavroidis, 2013; Bolliger & Martin, 2018; Kaynode, 2018; Martin et al., 2018). Additionally, the design and appearance of the course will also affect the facilitation of teachers' and learners' contact with each other.

Martin et al. (2018) claim that many obstacles can be avoided by clearly stating requirements and expectations early on in the course. This should include the expectations of the students' engagement and participation, but also the responsibilities of the teacher. Their study showed that if a teacher is clear with how fast they aim to answer questions and providing feedback to the students, the course could lead to higher student satisfaction and success rates. The importance of clearly stated requirements is also highlighted in Angelaki and Mavroidis' (2013) research, where they argue that the lack of clear expectations can lead to anxiety among the students. They state that the students could feel stressed and anxious by the lack of clear expectations and instructions, and feeling insecure of what to do and what is expected of them.

In addition to the importance of clear expectations in distance courses, it is also crucial to establish an active presence of the teacher (Angelaki & Mavroidis, 2013; Bolliger & Martin, 2018; Martin et al., 2018). The possibility for active and friendly communication between learner and instructor seems to be vital when trying to conduct a successful distance course (Bolliger & Martin, 2018; Martin et al., 2018). Bolliger and Martin (2018) argue that by offering several channels of communication, the sense of community among learners can be enhanced, and consequently also increase the students' satisfaction of the course. Similarly, Martin et al. (2018) also state that if students are able to contact the teacher through different means of communication, such as email, telephone, virtual office hours or a forum, this could lead to higher success rates among the students.

Linked with the active and friendly communication with the instructor, there is the importance of providing timely feedback. Previous research has shown that students feel more connected and engaged to the course when teachers are being responsive to their needs and providing accurate feedback in a timely manner (Martin et al., 2018). The authors go on to claim that fast replies from the teacher was rated the most important factor regarding instructor presence and facilitation strategies in an online course. This proves that teachers should aim to be active and present in the course, especially in the beginning, in order to successfully develop a sense of community and connectivity with, and among, the students.

The importance of stability and establishing a relationship with the instructor is also evident in research regarding digital tools aimed at assisting the integration of newly arrived immigrants. When trying to integrate into a new society, it is crucial for the newly arrived to gain knowledge about their new society, as well as learning the language. When it comes to a country like Sweden, which has a language that is rarely spoken outside the country's borders, newly

arrived immigrants can experience additional hardship learning the language. This is due to the fact that they usually have very limited previous knowledge of the Swedish language (Bradley et al., 2017).

Fejes and Dahlstedt (2020) stress the importance of stability and developing a sense of belonging among learners, regarding their integration in the Swedish society. Through engagement in language courses provided by popular education institutes, some of the interviewed refugees reported that popular education provided a sense of home, stability, participation and learning. Even though the focus of Fejes and Dahlstedt's study was not on digital initiatives or technical solutions, it is worth mentioning as it highlights the importance of providing an opportunity for refugees and newly arrived to gain a sense of community in their new host society. The learner-instructor interaction was evident in their study as the teachers played a crucial role in assisting and supporting the participants not only with the language learning, but with generally any issue they needed assistance with, from translating a letter to signing up for bodybuilding (Fejes & Dahlstedt, 2020).

As stated in previous paragraphs, it is rather clear that the instructor plays a crucial role in promoting learner engagement in distance courses. Active and friendly communication as well as timely feedback is important and made possible through appropriate appearance and design of the platform where the distance course takes place. This highlights the importance of developing a space which facilitates the learner-instructor interactions.

### 3.3 Learner – learner interaction

In addition to establishing a positive relationship with the instructor of the course, it also seems very important for student engagement to gain a sense of community with the other participants of the course. Many studies have concluded that both student satisfaction and course completion can be affected by active social support and by establishing a sense of community among the participants of course (Angelaki & Mavroidis, 2013; Bolliger & Martin, 2018; Caspi & Blau, 2008; Hrastinski, 2008; Phan et al., 2016). Aspects such as communicating personal experiences and anecdotes can promote a trusting environment and social support, which in turn foster receptive and creative learning environments (Hrastinski, 2008).

Since participants of a distance course rarely, or ever, meet each other in real life, it is important to early on create opportunities for them to build connections on a more personal level. Research has shown that students are more likely to actively engage in a course if they have a sense of belonging and feel part of a community. These opportunities can for example be to encourage students to write a personal introduction post in a forum, engage in icebreaker discussions, and generally encourage students to share personal stories and anecdotes (Bolliger & Martin, 2018). Similarly, Garrison and Anderson (2003) state that engagement in

communication that is more personal, such as referring to other learners by their names or expressing emotion or humour, may enhance the level of social presence among the learners. Furthermore, Bolliger and Martin (2018) argue that learner-learner interaction can be fostered via the instructor by posting welcome messages and announcements, as well as creating interesting and intriguing discussions to stimulate interest and engagement.

Another way that has proven to increase both active engagement as well as sense of community, is the promotion of collaborative learning (Bolliger & Martin, 2018). Liu et al. (2007) mention that collaborative learning related to a higher sense of community might be more evident in smaller groups, where personal connections are easier to establish, rather than larger groups with many students. Furthermore, the design of the platform can affect the promotion of collaborative learning. The use of a virtual classroom for example, was reported to have “significant potential to support collaboration” (Falloon, 2011, p.199). However, collaborative group work might also pose difficulties in distance courses. Kurucay and Inan (2017) mention that previous research has shown higher student dissatisfaction among learners who were required to engage in group work. They provide examples arguing that students might be reluctant to engage in too much collaborative work as they have chosen to partake in a distance course due to the flexibility and convenience it provides.

There are also some challenges that come with trying to implement and encourage learner-learner interaction as well as a sense of social presence. Firstly, some learners may simply not have any interest in getting to know the other participants, or creating a sense of community, they just want to learn the content of the course. Many people choose this type of distance studies because they require the flexibility it provides, and might simply not see any benefits of creating a sense of community with the other learners (Kurucay & Inan, 2017). Furthermore, the lack of technical skills or confidence may disturb the active engagement of some students. The absence of face-to-face communication and delays in communication, in combination with feeling incompetent of using the technology that is needed, might cause students to avoid engagement, or simply choose to discontinue the course (Kurucay & Inan, 2017). One way to tackle these challenges is, as mentioned earlier, by having an active instructor as well as clearly stating instructions and requirements. By doing this, much confusion among the learners can be avoided and they could feel more secure with engaging in the discussions.

The benefits of learner-learner interactions are also evident in studies about migrants' experiences of digital learning. Kukulska-Hulme (2019) describes how informal language learning among international students was supported by mobile group blogs where students were encouraged to share informal observations about local language and customs. By assisting and supporting each other in their new contexts and learning of the local language, the international students gained knowledge of the language, as well as avoided the common feelings of isolation by being alone in a new society. On a similar note, Svoen et al. (2021, p.95) state that there are evident indications that “digital learning resources are most successful



when the users, in our case refugees and migrants, are able to feel empathy and a sense of social identification and social belonging to others”. They relate this to the potential positivity and relatedness that users can feel if they, through digital storytelling, are able to engage in stories from other people who are, or have been, in a similar situation to themselves.

Contradicting the arguments of positive development of social connections through digital storytelling, other studies have shown results of migrants and refugees’ reluctance of participating in online courses. In a study regarding Free Digital Learning initiatives aimed at civic integration for refugees and migrants, Castaño-Muñoz et al. (2018) state that many migrants and refugees felt hesitant towards these initiatives, as they claimed that they lack the possibility to physically meet people. Some participants in the study by Castaño-Muñoz et al. argued that meeting locals, employers, or other migrants in a face-to-face setting is crucial when establishing a social network and trying to integrate in the society. The participants argued that this was not possible in a distance course. This relates back to the challenges of establishing a social presence as well as sense of community within a distance course. As previously mentioned, the lack of face-to-face communication with the combination of feeling incompetent in using the technology, may cause learners to lose interest in continuing the course. These are very important aspects to keep in mind when developing and designing a distance course, but by trying to facilitate the establishment of a sense of community, some of these concerns and reluctancies may decrease.

### 3.4 Learner – content interaction

In addition to establishing interactions with the instructor and fellow learners, the interaction with the content of the course can also be of considerable importance in distance education. Learner-content interaction is defined as “the process of intellectually interacting with content that results in changes in the learner’s understanding, the learner’s perspective, or the cognitive structures of the learner’s mind” (Moore, 1989, p.2). The content of the course needs to be interesting and relevant in order for learners to stay motivated and continue their engagement with the course material. To expand on the definition by Moore, learner-content interaction is the amount of time spent on different formats of content, varying from e.g., text, images, video, audio or interactive games (Bolliger & Martin, 2018). Meyer (2014) states that it might be beneficial for student engagement to provide the instructional content in multiple modes (visual, active, virtual), instead of only text based. Similarly, Schilling (2009) reports that students’ participation in the discussion forum as well as course evaluation scores significantly improved after an implementation of more multimodal delivery of content.

Learner-content interaction was also evident in the study conducted by Bradley et al. (2017) regarding migrants’ use of a mobile language learning tool. As previously stated, learning the language is a very important aspect when it comes to social integration. There are quite a few language courses offered for immigrants who are new to Sweden (via municipalities, universities and popular education), but there are also some technical solutions immigrants can

use in order to improve their skills in Swedish. Some examples of this are language-learning applications such as Duolingo or Babbel. These are not specifically targeted toward newly arrived immigrants, but they offer basic Swedish courses delivered in a multimodal way, which might be useful for anyone learning the language.

Bradley et al. (2017) investigated if the use of a mobile language learning tool could improve the knowledge and pronunciation of Swedish among a group of newly arrived immigrants. They found that even though the pronunciation improved in the group that used the mobile learning tool, the participants found it difficult to stay motivated to use the tool as often as desired. This is a common issue that also is evident in distance courses. As mentioned earlier, lack of motivation and engagement are frequent reasons for why learners choose to discontinue online courses. On a similar note, Bradley et al. (2017) claim that it could be beneficial to implement aspects of social interactions as well as gamification features in the app in order to increase the motivation to use them.

### 3.5 Learner – interface interaction

According to Kaynode (2018), the use of communication tools to promote learners' interaction with the interface of distance courses, and thus potentially their engagement in the course, can be characterised as learner-interface interaction. One common way of communicating in distance courses today are discussion forums. If properly designed, they can provide a valuable space for learners to develop their knowledge, share ideas with each other, discuss and reflect on course content (Rusdi & Umar, 2015; Garrison et al., 2000). According to Rusdi and Umar (2015), an online forum can result in being more equal than a classroom, if compared to a traditional face to face setting. The forum allows space and opportunity for everyone to contribute to the discussion, unlike in a classroom where more dominant learners might take up the majority of the space. The asynchronous mode of communicating in a discussion forum that lets learners reflect between exchanges, can also allow for development of their higher-order thinking (Garrison et al., 2000). At the same time however, the asynchronous communication in a discussion forum can also lead to learners feeling more isolated as the "lack of visual and vocal cues can make establishing social presence difficult" (Borup et al., 2013, p.49).

Building on asynchronous communication, Hrastinski (2008) compared the outcomes of both asynchronous and synchronous discussions in two different distance courses. He found that students reported a higher sense of connectivity and engagement when discussing synchronously via chat, but the study also proved benefits of the asynchronous discussion. Hrastinski (2008) argues that, similarly to Garrison et al. (2000), the asynchronous discussion let students have more time to reflect on each other's replies, and thus each entry in the discussion were more focused on quality rather than quantity. Through the synchronous discussion however, the students could expect fast replies. Less percentage of the answers were

strictly focused on the discussion, but a higher level of social support was evident (Hrastinski, 2008). This can be compared to results from a study undertaken by Falloon (2011), where learners in a course with a virtual classroom reported mixed feelings regarding synchronous communication. While some praised the fact that communication was fast, easy and provided a sense of connectivity to the other learners, others expressed feelings of stress and anxiety. The learners not in favour of the synchronous discussion stated that they prefer to develop their arguments and comments over a longer period, needing the time to reflect and deepen their thoughts.

Furthermore, the learners in Falloon's (2011) study were also divided regarding their feelings of insecurities in synchronous versus asynchronous discussions. While some felt insecure regarding posting in an asynchronous discussion forum due to the fact that their comments will stay there for a long period of time, being read and analysed by other learners, others felt insecure to discuss synchronously as they were afraid to say something that they had not thought through properly (Falloon, 2011). It is clear that there is not one single solution that suits everyone, as all learners have different preferences and personalities. However, one aspect that was quite evident from most learners in Falloon's study was the need for clear information and expectations. As has been mentioned before, this links to the learner-instructor interaction, and seems to be very important in distance education, maybe because a clear structure is needed in the environment that otherwise builds so much on autonomy and flexibility.

Linking learner-interface interaction to the area of civic integration and digital initiatives aimed to assist migrants' integration, in the study conducted by Svoen et al. (2021), they briefly mention that the integration of immigrants is closely linked to digital inclusion. It is crucial that immigrants not only have access to digital means, but also have knowledge about how to operate them as well as retrieve useful and meaningful information from them. They go on to claim that by feeling comfortable navigating digital spaces, migrants and refugees develop a sense of social identification, social belonging and wellbeing with themselves and others.

As previously mentioned, Castaño-Muñoz et al. (2018) reported that many refugees expressed a need for more face-to-face communication in order to develop meaningful relationships with for example potential employers or locals. They also mention that a blended learning style might be beneficial to apply, especially in courses developed for migrants and refugees, as the blended style of conducting the course both online and in person might assist the learners in developing a sense of community with the other participants. Furthermore, they point to the fact that distance courses developed for refugees and migrants need to apply a human-centred design that involves the learners. Migrants and refugees are a more heterogeneous group than traditional learners, with different backgrounds, previous education or language skills, and this needs to be taken into consideration when developing courses for this target group (Castaño-Muñoz et al., 2018). The human-centred design should be applied both for the development of

the course content, as well as the design of the course platform, in order to assure usability for many learners.

## 4. Method

This section will first give a detailed description of the specific context of this research project. A brief explanation of the course that the communication space is planned to be part of as well as why the decision of developing specifically a discussion forum was taken. Following that comes a description of the Design Thinking approach that was applied throughout this project, with brief explanations of each step of the process.

After the description of the Design Thinking process, the data collection as well as data analysis methods will be explained in detail. Additionally, this section will give a detailed account of the participants that were part of this project, as well as a section of the ethical considerations that needed to be taken into account for this research.

### 4.1 Description of project

The organisation that I collaborated with during this research project had already in 2019 started the project of developing a distance based civic orientation course. The notion of developing a distance course in civic orientation has been highlighted before, and not only in the municipalities of Region West (Länsstyrelsen, Kalmar Län, 2020), but to my, and the staff of the organisation's, knowledge no such course has yet been developed anywhere else in Sweden. In 2020 when the COVID-19 pandemic hit, the civic orientation courses that were currently running, quickly had to change to digital remote teaching. The difference between these current courses and the new distance course that is being developed, is that the current courses are run as before with weekly lessons (only now conducted digitally via the communication platform Microsoft Teams), while the new course will have pre-recorded video lectures that the learners will study independently.

As just mentioned, in the new course the learners will need to independently study the required material for each lesson, which will include video lectures and other complementary information material such as for example readings, videos or audio files. The learners will then need to carry out different tasks in order to complete the lesson, one of which might be to engage in a discussion in the discussion forum. The decision of developing a discussion forum as the main communication tool in the distance course will be explained in more detail in the Design Procedure section, but it was early on a clear desire from the teachers and staff involved in the project development group. This, taken as a desire from the end users, together with the frequency and promotion of the use of a discussion forum shown in previous research (Rusdi

& Umar, 2015; Garrison et al., 2000), influenced the decision of developing a discussion forum as the main communication tool in the new distance course.

With this in mind, the aim of this research project is to develop a communication space including a discussion forum in a distance based civic orientation course. Additionally, to investigate how this space could be developed in order to support a sense of community among the learners of the course. As the distance course itself was in its planning stage during this research project, and not actively running yet, the data collected are from people who are currently studying the 'normal' civic orientation course, international students who fit the target group for the new course, as well as teachers working in the organisation.

During this project, the Design Thinking method was applied as a means to incorporate the end users throughout the process. By collecting data and continuously communicating with both learners and teachers, a prototype for a communication space could be developed that would attempt to please both user groups' needs as much as possible. Below follows a more detailed description of the Design Thinking method.

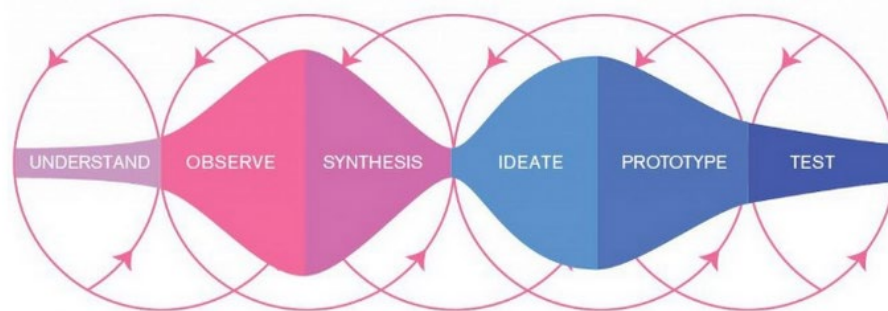
## 4.2 Design Thinking

The Design Thinking process is a creative problem-solving approach that aims to develop a new solution to a problem by applying a user-centred approach. Through close and continuous contact with end users, the researcher first defines the actual problem at hand, develops several possible solutions, tests them out and eventually, through many iterations, creates a well-researched and well-designed solution. The approach has gained popularity over the last couple of decades and is now used in a wide range of sectors and organisations, from law firms to primary schools (Pande & Bharathi, 2020). Many companies find it intriguing and desirable to apply this kind of creative problem-solving, that aims to put the actual users' needs first, and thus reach a solution that will be embraced and enjoyed by as many people as possible. It has also been applied in many educational settings and thus been argued to have a "positive influence on 21st century education across disciplines because it involves creative thinking in generating solutions for problems" (Razzouk & Shute, 2012, p.331).

The design thinking process is a non-linear, iterative process where the aim is to, through close collaboration with the end-users, solve a problem (Norman, 2013; Pressman, 2019; Razzouk & Shute, 2012). All design thinking processes are different, and can include different numbers of steps or iterations. If anything defines the design thinking method, it would be iteration (Cohen et al., 2018; Norman, 2013; Pressman, 2019). It is of great importance to constantly be critical and aware of the process, question what has been found and developed, and not be afraid of having to re-do certain aspects again and again. It is all part of the process as well as

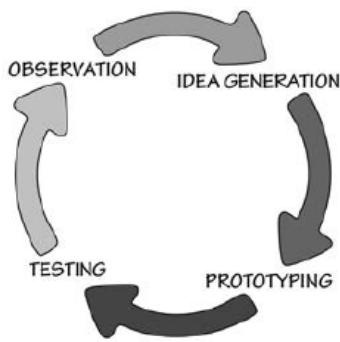
a crucial aspect, as it forces the designer to constantly reflect, improve and thus create what they consider the best possible solution for the problem at hand.

Even though the design thinking approach is quite popular and well used in many situations and organisations, there are of course some aspects to keep in mind in order to assure the quality and reliability of both the process and the solution. Time and budget restrictions are undeniably aspects that can affect the outcome of the design, but they are not the only ones. Some question the ability of the designer to constantly think critically as well as question themselves and their decisions, which are important aspects of the design thinking process (Williams & Stables, 2017). It is very important for the designer to empathise and fully understand the end-users' needs, and to continually evaluate and improve the work towards the solution to those needs. This is not always a simple task, and when adding time restrictions as well as logistical requirements, it can be tempting to develop something fast, just to meet these requirements, rather than manifesting the users' ideal.



*Figure 1 The Double-Diamond Model of Design (Gerber 2018)*

One often applied method in design thinking is called the Double-Diamond Model of Design (Figure 1). When applying this method, the designer should attempt to first expand the scope of the problem(s), to then narrow it down to one core issue. After that, the designer should again expand their mindset to a wide range of possible solutions, until they finally can narrow the scope again and focus on one prototype that should then be the best possible solution to the problem (Norman, 2013). Figure 1 visualises the different steps as well as the continuous iteration where one can go back and forth between the steps several times before presenting a suitable solution.



*Figure 2 The spiral method (Norman 2013)*

As this project with the civic orientation course aimed to develop a communication space as useful as possible for the users, the design thinking approach was chosen and thought of as best suited for this thesis. This made it possible to investigate the needs and desires of the users – both teachers and learners, and through iterations land in an early prototype of a solution that is believed to be beneficial for both user groups. The Double-Diamond Model has been applied in the project as a means to stay on track and move forward through the process, while constantly critically evaluating each step and iterate where needed. The design thinking process is never linear, the designer has to continuously question and evaluate each step until they are confident that the best possible solution is reached. As shown in Figure 2, the design thinking process is also quite well depicted as a circle, which further emphasises the importance of iteration. Norman (2013) explains that this method often is referred to as the spiral method, where each iteration leads to progress in the process.

### 4.3 Design Thinking Process

Many different researchers and designers have defined and described the design thinking process with different number of steps as well as with different names. I have chosen to divide this thesis into five different phases (empathise, define, ideate, prototype and test) as first defined by Hasso-Plattner Institute of Design at Stanford (Vorontsova, 2019). However, as shown in the figure of the Double-Diamond method (Figure 1), six phases are visualised and described by other labels (understand, observe, synthesis, ideate, prototype and test). Simply put, the first two steps (understand, observe) shown in the figure is in this thesis combined in the Empathise phase, and the Synthesis phase is in this thesis called the Define phase. This image is chosen to visualise the process in this thesis since it portrays both the iterative nature of the design thinking process as well as the Double-Diamond method in a clear way. Below follows a brief description of each stage of the design thinking process.

#### 4.3.1 Empathise

The first stage of the design thinking process is to problematise and define the problem at hand. In order to fully understand the problem, it is important that the researcher try to gain a deep understanding of the users' motivations, thoughts and values. According to Pressman (2019, p. 14), "conducting an effective focused interview is a fabulous tool for this type of information gathering, and is a very valuable and surprisingly undervalued component of the design thinking process". During this phase, the researcher attempts to, through interviews or other types of data collection methods, fully understand the situation and underlying problem at hand.

#### **4.3.2 Define**

After data is collected from the target groups, the researcher can start trying to define the problem. During this stage, personas, empathy maps and problem statements can be developed in order to visualise and clarify what problems there are and how to assess them (Lewrick et al., 2020). By analysing the collected data, the researcher can find similarities, differences and common trends that the users have expressed, and narrow down the scope to areas and problems that seem to be the most important.

#### **4.3.3 Ideate**

When the researcher believe they have defined the actual problem that needs to be solved, they can move on to the ideation stage. Here they will need to widen the thought process again and develop as many possible solutions as possible. Pressman (2019) states that it is important to seriously consider both the good and the bad ideas that the researcher comes up with. By evaluating even the bad ideas seriously, there is a possibility that it will trigger something, and an exceptional idea will emerge.

Luchs et al. (2016) mention however how sometimes our own perceptions and knowledge about a product might limit our creativity and is thus a potential challenge in the ideation stage. The extensive knowledge about a product and therefore set ideas about what is and is not possible to use that product for, can directly impact the ability to think about new ways in which the product can be used. This shows the importance of keeping a critical mindset and constantly evaluate each step and idea. It is important to be aware of this challenge in order to try to avoid it as much as possible. Another potential challenge is when the designer has not developed a deep enough understanding with the end users. When developing new ideas, it is common to imagine oneself as the user, and when that is not the case, it can impact the process in a negative way. If the designer discards an idea based on their own thoughts and needs, it might not resonate with what the actual user might have wanted. It is important to develop a deep understanding of the intended users in order to successfully design for their needs (Luchs et al., 2016).

#### **4.3.4 Prototype**

When the ideation stage is completed, a somewhat clear idea of a solution should have been developed. Then it is time to transform that idea into a simple prototype. At this stage, the prototype does not need to be high-fidelity or take a long time to create, rather the opposite. The purpose of this stage is to create a simple prototype that can be tested with the users, and later evaluated, improved and created again (Pressman, 2019). As the whole design thinking process is an iterative process, the prototype stage might be done several times, and it is therefore important to create fast and simple prototypes that easily can be re-made. This phase is closely connected to the next phase – testing, and several iterations between these phases are



common. Through testing the prototype is evaluated, and after each iteration the prototype will come closer to the final product (Lewrick et al., 2020).

#### **4.3.5 Test**

The testing stage is where the prototype is tested with the actual users. One common way of conducting this is by a so called think-aloud usability test. During a think-aloud session, the user will test the prototype and simply think out loud while they are doing different tasks. The researcher might ask the user to do something (to try to log in for example, if the prototype is a website), the user will then, by themselves try to do this while explaining their thought process. This type of test is done in order to understand and highlight problems with the prototype that the researcher might not have thought about (Blandford et al., 2016). By explaining their thought process out loud, it can become clear for the researcher that the instructions for the website are not clear enough, or that a button needs to be moved, for example.

#### **4.3.6 Implement**

Normally in a design project the last stage is the implementation stage. This is when all other stages have been conducted, evaluated and iterated through until a satisfactory solution is reached. This is the last stage and when the actual final product is implemented and used 'for real'. As this was a research project within another project, it was impossible to reach this stage of the process. The larger project is not scheduled to be completed and implemented for another few months, so the implementation of the communication space cannot be evaluated in this paper.

### **4.4 Data Collection**

This section will describe the chosen methods for collecting data from the participants of this project. As the approachable current civic orientation student groups were very small to begin with, the initial plan was to only collect qualitative data through semi-structured interviews. However, after presenting this idea to the current students they expressed that they were very restricted for time, and thus a questionnaire was distributed as a complement to those who were unable to participate in an interview. The following pages provides a presentation of the participants of the research as well as the chosen data collection methods.

#### **4.4.1 Participants**

The participants for this research were mainly accessed through the organisation that I was collaborating with. Two teachers were involved in the development of the course before I joined, so they naturally became part of the study as they already were rather invested in the project. Through the contact with them as well as the project leader, other teachers were

contacted and asked if they wanted to participate in the research. When it comes to the newly arrived immigrants, or the learners of the courses, purposive sampling was applied. In purposive sampling, “researchers handpick the cases to be included in the sample on the basis of their judgement of their typicality or possession of the particular characteristic(s) being sought” (Cohen et al., 2018, p.218). In this study, I – together with the team in charge of developing the distance course, chose to select participants who we thought would fit the target group sought for the new distance civic orientation course. This mainly meant that participants needed to be comfortable using a computer and have another main occupation such as work or studies. Additionally, only participants with a high enough level of English were chosen for this study, as to avoid misunderstandings between participant and researcher due to language barriers.

Initially one learner group of 11 students were approached with an invitation to participate in the study (Appendix A). Out of these, two agreed to be interviewed, and four responded to the questionnaire (Appendix B) that was sent out. As an attempt to attract more participants, a second group of learners of similar size was later approached during one of their lessons in Microsoft Teams. The response in the group was positive and the questionnaire as well as invitation to participate in an interview was sent out here as well. However, after two weeks, no responses to the questionnaire or any interest expressed to participate in an interview had been shown, so the questionnaire was taken down.

As stated above, it proved to be rather difficult to attract current learners to participate in the research, so as an attempt to include a larger number of participants that would fit the future target group, three international students were also included in the sample. As international students could qualify to be in the ‘extended’ group of newly arrived immigrants, it was beneficial to collect thoughts and opinions from people in this group as well. Purposive sampling was applied here as well when reaching out to students, who were accessed via my university. As with the current learners of the civic orientation course, it was important that the international students fit the target group criteria – working or studying as their main occupation, comfortable using a computer, and having a high level of knowledge in the English language. However, as the international students had no experience of the actual content of the civic orientation course, it was also deemed important to keep the number of participants in this group similar to the number of current students, as to avoid an imbalance of input from the different groups.

Below is a table visualising the different groups of participants, number of participants from each group, what data collection method(s) that were used in each group as well as what type of testing of the prototype that was carried out in each group. In this project two different questionnaires were used; one during the empathise stage, and one during the testing stage. The first questionnaire (Appendix B) consisted of questions regarding the participants thoughts and feelings about how they would like the communication in a discussion forum to be, as well as

what potential issues they might have. This was done in order to gain a deeper understanding of the needs of the participants. The second questionnaire (Appendix C) was used as an evaluation of the forum after it had been tested ‘in action’ with the group in the current civic orientation course. The data collected from this questionnaire will be used to make changes to, and improve the prototype.

<b>Group</b>	<b>Number of participants</b>	<b>Data collection method</b>	<b>Test method</b>
<b>Current Students</b>	6-10 <sup>1</sup>	2 Interviews, 4 respondents in 1 <sup>st</sup> questionnaire 6 respondents in 2 <sup>nd</sup> questionnaire 2 respondents in follow-up interview	Forum in class, evaluated with questionnaire
<b>Target group students</b>	3	Interviews	Think-aloud usability testing of forum
<b>Teachers</b>	4	3 Interviews, Observations 2 respondents in follow-up interview	1 teacher involved in test with the class. Follow-up interviews

*Table 1 Description of participants, type of data collection method and test method*

As a means to collect enough data for this project, a combination of interviews, questionnaires and observations were applied as data collection methods. The use of a mixed methods approach, meaning the use of both qualitative and quantitative data collection and analysis, is often promoted as a valuable approach, as this might allow the researcher to collect very rich data where the qualitative data can complement the quantitative and vice versa (Blandford et al., 2016, Cohen et al., 2018). As previously stated, the initial plan was to collect only qualitative data through interviews and observations, since the sample of participants was rather small to begin with. Although, since it became evident that students of the current civic orientation course felt very restricted for time, the decision to implement a questionnaire as well as interviews were conducted.

#### **4.4.2 Interviews**

For this project, two persons who were currently studying the civic orientation course, three international students and two teachers were interviewed through semi-structured interviews (Appendix D, Appendix E). Due to the ongoing Covid-19 pandemic, all interviews were conducted remotely over Microsoft Teams and Zoom. This was positive in the sense that due to the participants’ time restrictions, interviews could be scheduled with rather short notice, during a time that suited them. Even though it is less personal to conduct an interview remotely,

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<sup>1</sup> As questionnaires were completed anonymously it is not possible to know if the same persons answered both questionnaires and/or interviews, or if they were completed by different respondents.

and some difficulties such as lack of visual body language or connectivity issues are present, it was also the only way I had previously met the current learners as well as the teachers, so in a sense it felt more comfortable and appropriate to continue that type of meetings rather than establishing a new relationship in person. The interviews were recorded with audio and video through Microsoft Teams and Zoom, and the files were later downloaded and saved on my personal hard drive. After the Test Phase four follow-up interviews (Appendix F, Appendix G) were conducted, which will be described in more detail in section 5.5.

According to Gray (2004), the interview is a favoured approach when the researcher wants to collect detailed data, involving people's feelings or attitudes. Interviews also allows the researcher, as well as the participant, to expand on certain topics and have the possibility to clarify questions and answers that might have been misunderstood in for example a questionnaire. Even though it is more time consuming than a questionnaire, the interview setting can lead to the respondent feeling more relaxed and comfortable answering questions. The data collected is also much more detailed and qualitative than data collected from a questionnaire. The researcher will gain insight into what a person likes, values, knows and thinks about certain topics (Cohen et al., 2018). Due to this, the semi-structured interview was considered to be a useful method to gain a deep understanding of what was important for the participants regarding communication in an online forum.

One of the challenges with conducting interviews is the possibility that the respondent does not feel comfortable enough to answer questions. Often the interviewer and the respondent do not have much time to get to know each other and build a relationship, as interviews often are held in single sessions, with little time for preparation (Corbetta, 2003). As an attempt to overcome this challenge, I visited a few classes of the learners who are currently partaking in the civic orientation course. By visiting the class, I could introduce myself and my project, and the learners could ask questions in an open and friendly setting. Additionally, while listening to the class, I gained knowledge about the content they were learning, as well as knowledge of the persons in the class through their discussions. This was a helpful activity, as it later felt less uncomfortable between me and the participants when conducting the interviews.

Other challenges to keep in mind when conducting interviews are interviewer-bias, inconvenience of the respondent and the lack of standardisation (Cohen et al., 2018; Corbetta, 2003). As the semi-structured interview is characterised by its fluidity and possibility to change slightly for each interview, some claim that the data collected is impossible to compare (Corbetta, 2003). Corbetta (2003) continues to claim that as qualitative interviews are time-consuming and conducted in depth, the sample of interviewees is often very small, and it is impossible to make generalisations based on the collected data. Moreover, the interviewer needs to be aware of interviewer-bias, as well as of the inconvenience of an interview to the respondent (Cohen et al., 2018). During the interviews I conducted, I tried to be aware and keep my own biases in mind, as to avoid making my own assumptions and conclusions based

on the answers I was given. If any answer given to me was unclear whatsoever, I asked follow-up questions until I received a satisfactory answer, instead of making my own conclusions. The inconvenience of the interviews to the respondents were, in this project, mainly related to time restrictions. All participants had very busy lives, and I tried to accommodate this by being flexible regarding time and duration of the interviews.

#### **4.4.3 Questionnaire**

Due to the fact that most of the learners approached for the possibility of participating in an interview expressed their inability to do so due to lack of time, I also decided to complement my data collection with a questionnaire. Most people participating in the civic orientation courses also have families, jobs, studies and other responsibilities to attend to, so as an attempt to respect their busy lives, while also wanting to collect valuable data, a questionnaire felt like the best option. The questionnaires of this study were developed on [www.sogosurvey.com](http://www.sogosurvey.com) and distributed to the participants through email, via their teacher.

Some of the best aspects of using a questionnaire for collecting data is the possibility to collect much data in a short amount of time, the possibility to let participants be completely anonymous without even the researcher knowing who has answered what, as well as collecting data that is fast and easy to analyse (Cohen et al., 2018). Some of the downsides is the inability for flexibility, for participants to ask questions or make sure they have understood the question correctly, as well as the impossibility for the researcher to remove data in case a participant want to withdraw from the study.

As mentioned previously, a major challenge of using a questionnaire is the inability to make sure everyone interprets or understand the questions the same way. The standardisation of the questions makes it easy to compare and analyse the data, but the lack of flexibility can also be seen as a disadvantage. Questions can be difficult to understand for different people, or be interpreted in different ways depending on the respondent. The inability for the respondent to comment, ask questions or explain their answer further describes this challenge which is impossible to completely avoid (Cohen et al., 2018). One attempt to lessen the effects of this however, that was done in this project, was to send out a draft of the questionnaires to a teacher and the project leader in the organisation. After reading through the draft and providing feedback of how it could be improved for clarity, changes were made, and the questionnaire could be distributed to the participants.

#### **4.4.4 Observations**

Observations in this project were conducted to some extent in order to both gain an understanding of the situation as well as the problem area, and to collect data from the teachers and personnel of the organisation. By participating in weekly staff meetings, thoughts and

concerns from the teachers could be collected by notes. This was not the main type of data collection, but rather functioned firstly as a way of developing an understanding of the context and secondly as a complement to the interviews and questionnaires. The observations conducted will be explained in more detail in section 5.1 (Empathise Phase).

According to Gray (2004), the method of observation includes more than just seeing, the researcher also needs to interpret meaning into the events. This can often provide very rich data, but is also fragile to the exposure of researcher bias. It is important that the researcher is very aware of their interpretations, as one's own perceptions and opinions might very well influence the interpretation. As previously mentioned, the observations that took place during this project were more focused on developing an understanding of the field, as well as collecting some input from the teachers and personnel of the organisation. The observations were overt and as emphasis was on collecting direct opinions and thoughts regarding the use of a communication space, I could avoid inflicting too much of my own biases as not much interpretation was needed.

## 4.5 Data Analysis

### 4.5.1 Thematic Analysis

The data collected during this project were analysed through a thematic analysis approach. When conducting a thematic analysis, the researcher attempts to identify certain themes that are recurring in the data, and then attempts to find similarities or contrasting differences. Below is a visualisation of the thematic analysis (Figure 3). A larger and more detailed visualisation of the data is shown in Figure 10 under section 5.2 (Define Phase), as well as in Appendix H. As the data set was rather small, no software or major tools were needed to sort or categorise the data. All interviews were recorded and later summarised and noted down by the researcher. Both the data from the interviews and the data from the questionnaire was continually analysed and sorted into categories and themes.



Figure 3 Thematic analysis of data

The data was sorted first into three different categories (current students, target group students and teachers). Secondly, different themes depending on the interview (or questionnaire) questions were identified. The data was coded into keywords or short summaries of ideas and different coloured post-its were added to each theme. According to Cohen et al. (2018, p.668); “Coding is the process of breaking down segments of text data into smaller units (based on whatever criteria are relevant), and then

examining, comparing, conceptualizing and categorizing the data”. The coding of the data made it easier to categorise as well as to create an overview and create a dataset that would facilitate comparison between user groups.

## 4.6 Ethical Considerations

There were a few aspects in this project that needed to be taken into consideration in order to assure that the research was ethical and not harmful in any way to the participants. As newly arrived immigrants could be considered a somewhat marginalised group in the Swedish society, the power dynamics between me as a researcher and the participants needed to be considered and evaluated before the research could be conducted. Certain steps will be laid out below regarding informed consent, protection of participants’ anonymity and storage of data, as in accordance with guidelines from the Swedish Research Council (SRC, 2017) and All European Academics (ALLEA, 2017).

Firstly, as an attempt to lessen any discomfort or insecurities between me as a researcher and the participants of the civic orientation course, I attended a few of their classes on the communication platform Microsoft Teams. The first time I introduced myself and my project, opened up the space for any potential questions and then simply sat in and listened to their lesson. This was done in order for me to both gain an understanding of the course content as well as the participants, and for them to gain an understanding of me as a person, my project and my role as a researcher.

Before the phase of conducting interviews, I had first, via the teacher, sent out an invitation to all the participants explaining my research project and inquiring whether they would be interested to participate in an interview (Appendix A). In this invitation the purpose of the project as well as data collection methods were explained in detail. Additionally, it described what steps would be taken to protect the identities of participants as well as how the storage and deletion of data would be conducted. This was done in order to establish transparency of the research as well as make sure all participants were fully informed before agreeing to participate (ALLEA, 2017; SRC, 2017). Shortly after this, I visited the class again and described the aim and focus of my research in person. This time the participants were also encouraged to ask questions or raise any concerns, and this is where the request for a questionnaire rose. As an attempt to accommodate to the participants and their busy lives, I developed a questionnaire that would be fast and easy for them to complete.

I visited the civic orientation class a few more times before and after the testing of the forum in order to establish my presence and approachability. By being present and engaged with the class I tried to create a space where they would feel secure and comfortable asking questions

and participating, while simultaneously assuring them that any participation was completely voluntary.

In order to protect the participants' anonymity, I informed those who chose to participate in interviews that no personal or identifiable information about them personally would be included in this thesis (ALLEA, 2017; SRC, 2017). The small amount of data that has identifiable details attached to it has been stored on my personal password protected hard drive as well as in a password protected cloud storage. Data from the questionnaire was stored on [www.sogosurvey.com](http://www.sogosurvey.com) under my personal account. With the type of account I created it was impossible to hide the respondents' IP-addresses but as the data collected was not considered very sensitive, I judged it acceptable. Furthermore, no one but me has had access to the results of the questionnaire so I considered the risk of harming the anonymity of the participants as minimal. After the completion of this project, all data will be deleted from my hard drive and cloud storage as well as from sogosurvey.com.

## 5. Design Procedure

This section will explain each step of this project in detail. It will try to provide a clear visualisation of how this project was conducted, why the different steps were taken and what they resulted in. The results from the data collection methods will be laid out in the Empathise Phase section. The collected data will be described and analysed and ground the decisions taken during the process. As the Design Thinking process should take a human-centred approach, it is the input and thus the collected data from end users that will impact and guide the design forward. Under the Define Phase section comes an explanation of how the data was analysed as well as how problem statements were developed. This is followed by the Ideate Phase, which will expand on how different design solutions were considered and developed. Finally, in the Prototype and Test phase sections, the development and testing of the prototypes will be portrayed.

Table 2 below provides a visualisation of the timeline for this project. It portrays each phase as well as what tasks that were performed during these phases. It attempts to visualise the iterative and non-linear nature of the Design Thinking process, as each phase is overlapping with at least one other.



	Jan	Feb	Mar	Apr	May
Empathise	<div></div>				
	Observations, interviews, questionnaire				
Define		<div></div>			
	Personas, Problem statements, HMW-questions				
Ideate			<div></div>		
	Brainstorming				
Prototype				<div></div>	
	Development of prototypes				
Test				<div></div>	
	Testing and evaluation of prototypes. follow-up interviews, think-aloud sessions, questionnaire				

Table 2 Timeline and description of each phase conducted during the project

## 5.1 Empathise Phase

This section will describe the data collected from participants via observation, questionnaires and interviews. During this stage I attempted to gain as much knowledge as possible about the context as well as about the end users, their needs and desires.

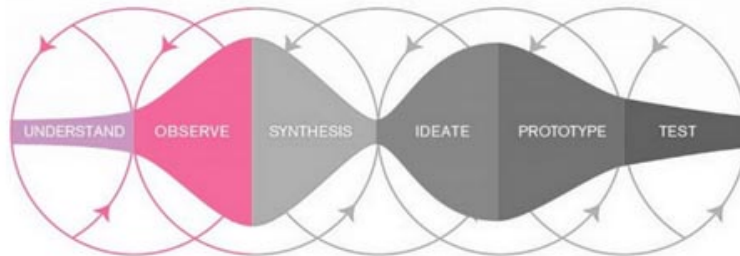


Figure 4 First stage of the Design Thinking process (Empathise) (Gerber 2018)

The first step of a design project is to gain an understanding of the context as well as the problem at hand. When facing a new design task, it is crucial for the designer to gain a deep understanding for the situation in order to solve the *actual* problem at hand. Norman (2013, p. 222) states that “The initial research to understand the nature of the problem itself is part of the discipline of design research”. This emphasizes the importance of allocating enough time to fully understand the context and the problem space, and not just rush into designing and developing something new.

In order for me to gain a deep understanding of the problem that needed to be solved, I first needed to develop my knowledge of the situation. In addition to reading previous literature

about civic orientation courses and policies, as well as documents surrounding the digital inclusivity project that the organisation I was working with was currently part of, I also conducted a fair amount of observations. From the start of this project in January 2021, I have been attending fifteen weekly meetings with the personnel of the organisation, as well as four civic orientation classes that were conducted during this time. In the meetings with the staff, I gained an insight into the project from a more organisational point of view, as well as the reasoning behind why certain decisions were taken in regard to the content and delivery of the new distance course. This let me gain a deeper understanding of the situation as a whole, which consequently affected my reasoning behind the focus of the interviews and questionnaires.

At the beginning of this project, discussions were conducted during these weekly meetings regarding the communication in the distance course. This included questions around what type of tool to use as an assessment tool, as well as how it would be managed and conducted. Early on it became clear that the teachers and the group leader of the project considered a discussion forum to be a suitable solution. A few other ideas were considered, such as only submitting written assignments or communicating via email, but as a discussion forum provides a collaborative space for learners as well as the instructor, this was deemed the most suitable option for this course. Furthermore, discussion forums are rather common in distance courses and several scholars have argued that it is a beneficial tool to use in a distance course in order to promote engagement in the course (Rusdi & Umar, 2015; Garrison et al., 2000). If used accordingly, it might facilitate the sense of connectivity and community among the participants of the course (Bolliger & Martin, 2018).

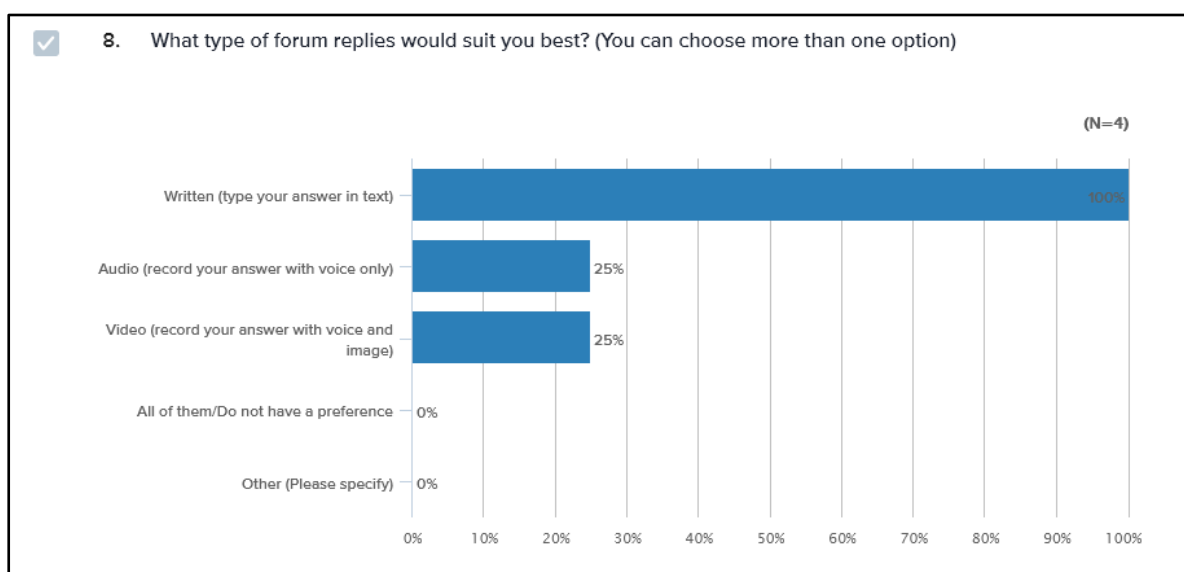
After a period of building my understanding of the field and situation, I could start developing interview templates (Appendix D, Appendix E) as well as a questionnaire (Appendix B) that could be distributed to the participants after they had received the invitation to participate in the study.

### **5.1.1 Results from current civic orientation students**

General trends that became evident from the interviews and the questionnaire with the students who are currently studying the civic orientation course were the importance of clear instructions and expectations in the forum, as well as a desire for interactivity and variation of types of assignments. Both interviewees expressed that they experience vast time restrictions, as they are working and taking care of their families simultaneously as studying the civic orientation course. This is often the case for many newly arrived, not only the ones included in the 'extended' group, and is thus an important aspect to consider when developing a new communication space (Länsstyrelsen, Kalmar Län, 2020). If instructions and expectations were to be established early on in the course, the interviewees stated that it would assist them in planning their time and studies accordingly. Additionally, the respondents expressed a fear that a forum as the main assessment tool in a distance course might become tedious and monotonous

if used the same way week after week. A suggestion to counteract this would be to create a variation of assignments in the forum, so as to keep students engaged and interested in the tasks. One idea for these variations was a promotion of the use of different media and modalities to deliver as well as completing the assignments. The interviewees stated that the use of video, images and audio would be a beneficial way of assuring the motivation and engagement of students, rather than just text based information.

Somewhat contradicting this use of different modalities, however, was the fact that neither the interviewees nor the respondents in the questionnaire expressed much interest in conducting different types of forum entries themselves. When asked what type of forum replies they would prefer, both interviewees favoured written replies, and only one respondent in the questionnaire included recorded audio or video replies as the preferred type of reply (see Figure 5). One interviewee preferred written replies as they expressed that it might be difficult to understand other people's recordings due to accents and the potentially varied knowledge of the language. This would especially be prevalent in the English civic orientation courses as English normally is not the participants' native language, but rather their second or third.



*Figure 5 Preferred types of forum entries*

Another significant aspect provided by the current students was the importance of individual feedback as well as the ability to reach the teacher. Respondents from both the questionnaire and interviews expressed that an active dialogue with the teacher was important in regard to communication and engagement in the distance course. As shown in Figure 6; all four respondents in the questionnaire stated that one of the most important aspects in a forum was fast replies from the teacher, as well as from other participants.

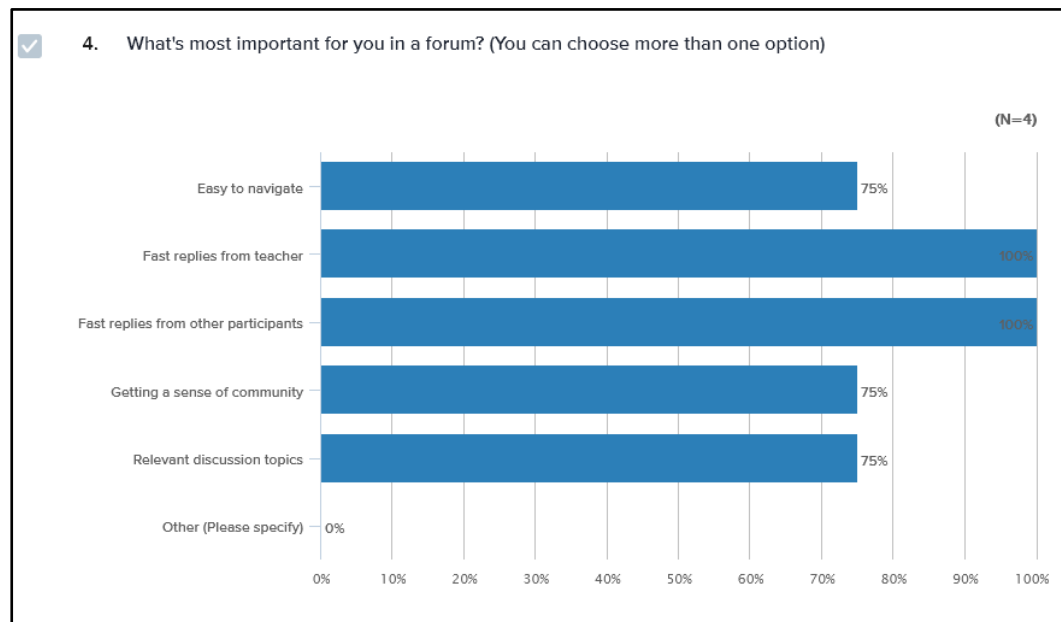


Figure 6 Response from questionnaire

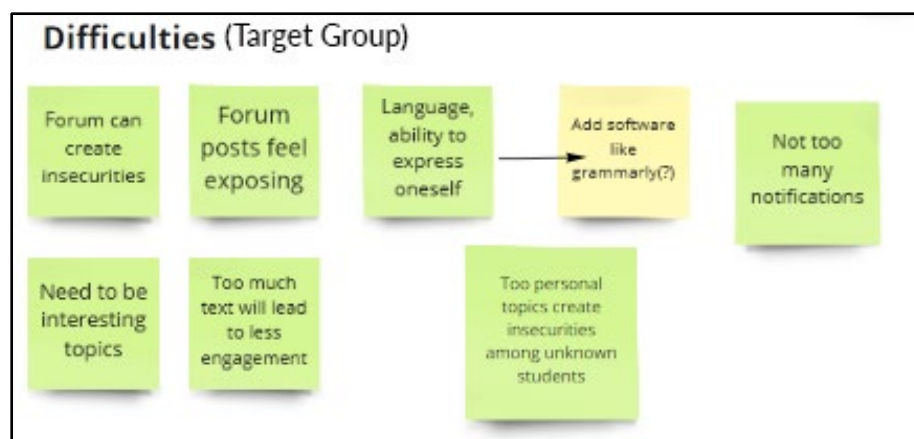
One of the interviewees stated that it was not necessary with particularly *fast* replies from the teacher or other participants. On the contrary, they claimed it is one of the advantages with asynchronous discussions – that one can reply in their own time. The interviewee did however emphasize the importance of being able to contact the teacher if needed. They stressed that it should not be difficult to reach the teacher in case you had any difficulties or questions regarding the course.

### 5.1.2 Results from target group students

The international students that were interviewed as representatives of the desired target group for the distance civic orientation course provided insights to potential useful features of the communication space in the course. All respondents expressed a resistance towards very long and dense mandatory posts in the forum – an insight that was also present among the current participants. The interviewees instead argued for short and quick replies from both the teacher and other learners, “more similar to social media”, that would encourage students to actively participate in the discussions in the forum. Another idea that was presented was the ability to see who else was online in the course, and thus be able to instant message that person. It was argued that this could provide an opportunity to build connections with the other participants, create a sense of community as well as offer an opportunity to both ask and answer questions from fellow students.

In addition to instant messaging, one interviewee also presented the idea of being able to schedule live video meetings with the other participants. They claimed that this could provide an opportunity for students to both gain a sense of community, while also avoiding the tiresome

acts of reading and writing long discussion posts. Additionally, the interviewees voiced concerns regarding the potential feelings of uncertainty and exposure when using a forum (shown in Figure 7). The fact that the posts do not automatically disappear, but will remain on the platform and be read and analysed by other students could create a feeling of insecurity and exposure among the learners, according to the interviewees. The respondents voiced this as another reason for using the forum more as a social media platform, they claimed that it would remove some of the stress and anxiety regarding what one posts, as short and more informal comments could be considered less serious.



*Figure 7 Difficulties of engagement in forum, (target group students)*

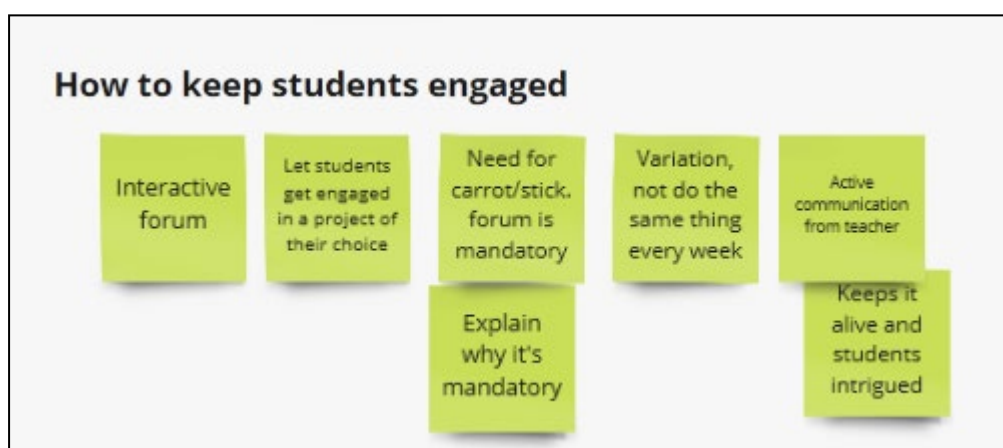
Similar to the current learners, the target group learners also emphasised the importance of establishing a sense of community. This was argued as even more important in this setting with newly arrived immigrants, in order to avoid feelings of isolation in the new host country. Additionally, they also expressed a preference for written replies in the forum and the ability to easily contact the teacher.

### **5.1.3 Results from teachers**

One of the main aspects found from the observations during the weekly meetings with the personnel, was the need for the organisation to establish clear guidelines in regard to the teachers' responsibilities and time engagement in the course. The teachers continuously expressed concerns about diffuse expectations and requirements regarding their involvement as well as responsibilities. There was an expressed fear that if no clear rules and regulations were in place, the burden on affected teachers would be too vast as they would not know how to regulate their communication with the learners, or when and how to moderate the entries in the discussion forum. This is a need that would have to be assessed from an organisational level, and cannot really be solved solely via the design of the communication space. It is however a need that is important to consider when developing the space, and can be assisted to the extent of attempting to make the usage of the space and forum as time efficient as possible.

Additionally, all teachers emphasized the need for simplicity and clarity. They have all worked with newly arrived immigrants for a number of years and thus stressed the importance of having clear instructions and expectations, in order to avoid confusion or misinterpretation from the participants. Especially when it comes to this type of a distance course, they all argued for the need of ascertaining that the future students will have the capabilities and digital skills necessary to complete this kind of course. Additionally, the teachers raised the importance of communicating the purpose of why the learners should engage in the forum. It was argued that there would be a higher chance of learner engagement if they are aware of why their contributions are valuable.

Similar to the students, the teachers also expressed that the forum should be both interactive and provide a variety of tasks in order to promote student engagement. They identified the risk of students losing interest and motivation if the use of the forum gets too mundane, or consisting of posts that are too long and dense. One teacher also mentioned the idea of letting students decide on a project of their choice, which they then might keep working with throughout the duration of the course. The teacher expressed that this might be a way of keeping students motivated and interested since it would be a project they would have chosen out of personal interest.

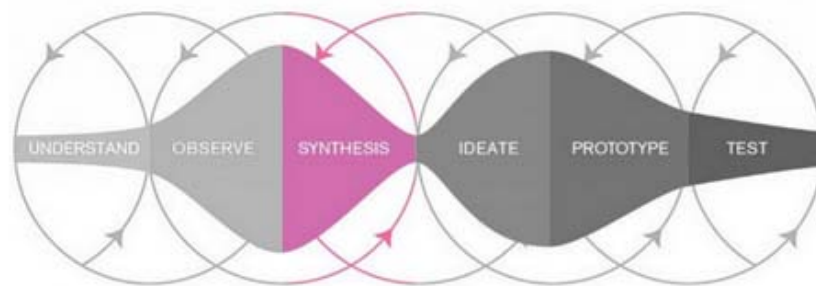


*Figure 8 Notes of teachers' opinions regarding student engagement*

An idea that was discussed with both learners and teachers was for the forum to be divided in two sections, one used for assessment and discussions related to the course content, and one for more social or informal reasons. Some teachers expressed a desire for this kind of divide, as they stressed the importance of keeping the lesson related discussions on topic. Additionally, there was a hope that by offering a part of the forum that is more informal, learners could participate in more social conversations and ask general questions, which potentially could support the development of a sense of community among the learners. One teacher also mentioned that it would be important to establish the forum as the main communication tool from the beginning of the course. They claimed that if the use of the forum becomes a natural part of the course, it would be easier to maintain active participation and engagement among the participants of the course.

## 5.2 Define Phase

By sorting through the collected data, finding patterns, similarities and differences, a definition of the ‘real’ problem can be developed. During the Define phase (Figure 9), the designer needs to narrow down the scope and attempt to conceptualise what the problem(s) are that actually needs to be solved (Lewrick et al., 2020; Pressman, 2019). This part will describe what steps were taken when trying to specify the problem space by analysing the collected data from the Empathise phase. Through an initial thematic analysis of the data, to developing two personas and defining six problem statements, that later were narrowed down into two ‘How might we...?’-questions, the design process advanced into the next phase.



*Figure 9 Second stage of the Design Thinking process (Define) (Gerber 2018)*

As the Empathise phase was progressing, the amount of data collected naturally increased. As I was conducting interviews, I continuously sorted through and analysed the data with a thematic analysis approach. While going through the interview data, I created codes for the thoughts and opinions of the participants and sorted the codes into different themes and categories. A table of all collected data organised by participant group and themes is shown in Figure 10 (an even more detailed visualisation can be viewed in (Appendix H)). In the table there are eight categories, each highlighted with a title and specific colour of post-it. Several opinions are evidently similar between all user groups (such as “Clear expectations”, “Interactive forum”, or “Sense of community very important”), while other are quite contrasting (such as “fast replies from teacher and other participants” from current students, while teachers are requiring “Clear rules regarding the time input from teachers”).

The table with all data, even though organised by themes, still needed to be analysed and narrowed down further in order to develop appropriate features of the communication space. One way of narrowing down and understanding the problem space is by creating User Personas. By using data collected from actual users, the designer can develop fictional personas that will help the designer develop a tool that is usable for the actual end user. The personas should ideally be as detailed and realistic as possible, as this facilitates the act of thinking of them as real people (Lewrick et al., 2020).



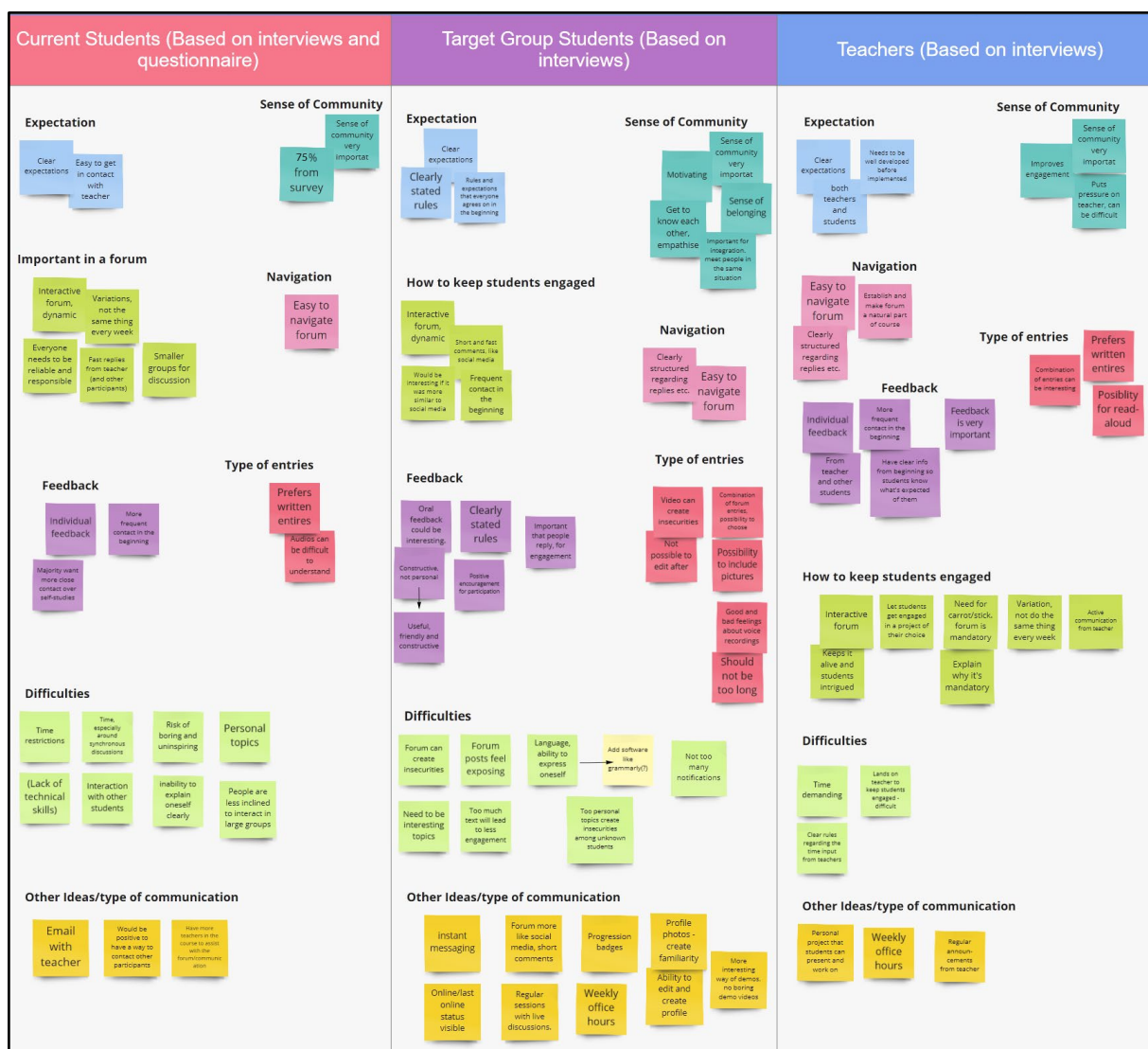


Figure 10 Thematic analysis of data

From the data I collected I developed two User Personas that represent the learner as well as the teacher of the course. The learner of the course is called Fahima (Figure 11), she is a 35 year old middle school teacher and has lived in Sweden for one year. Her goals are to learn about Swedish culture and connect to other people in a similar situation as her, but she is easily bored and loses interest if assignments are too repetitive. Additionally, Fahima will not read other people's posts in the forum if they are too long, and she also needs the page to be easy to navigate.





Figure 11 User Persona, student

The second User Persona is called George (Figure 12), he is 52 years old and portrays the teacher of the Civic orientation course. George is originally from the US and has taught civic orientation for seven years. George aims to make sure that all participants feel seen and motivated to actively engage in the course, as well as receiving clear rules from his managers regarding his own involvement in the course. George is worried that he will feel personally responsible to keep the forum active and exciting, and that future learners will not fit the target group and thus be unprepared or lack the required knowledge to complete the course. Lastly, he is afraid that learners will lose motivation and potentially discontinue the course if the forum is too difficult to navigate or understand the purpose of.



Figure 12 User Persona, civic orientation teacher

With the development of the user personas, a few pain points of these personas became clearly evident. To further synthesise these pain points I aimed to develop problem statements as well as ‘How might we...’ (HMW) questions. The HMW question is an approach used to turn a problem into a possible solution. By asking ‘how’ there is an implication that there are possible solutions to the problem, and ‘might’ implies that the possible solutions could work in this specific situation (Lewrick et al., 2020).

	What is the problem?	Why is it a problem?	Who has the problem?	When does the problem occur?
1	Tasks in the forum are too boring and repetitive	Learners lose interest and motivation to continue	Learners	After a few weeks, when tasks have become too mundane
2	Teachers do not know what is required of them regarding time and engagement in the forum	Quality of teacher engagement will vary and be unstable depending on course and teacher. Might cause stress for teachers	Teachers	Throughout the course. Especially if some participants demand a lot of attention
3	Learners feel alone and disconnected from the other learners of the course	Lack of connections and sense of belonging can lead to demotivation to continue the course	Learners	When learners have not managed to establish connections to each other
4	Learners do not see the point of actively engaging in the forum	Teachers cannot assess if learners have learned or participated in the course	Teachers & Learners	When instructions are unclear
5	Learners are unsure of how to use the forum, where to find everything.	Can lead to learners choosing not to participate in the forum	Learners	When learners need to navigate or use the forum
6	Learners feel exposed when posting in the forum	Makes learners hesitant to write in the forum out of fear of being judged	Learners	When use of forum is required

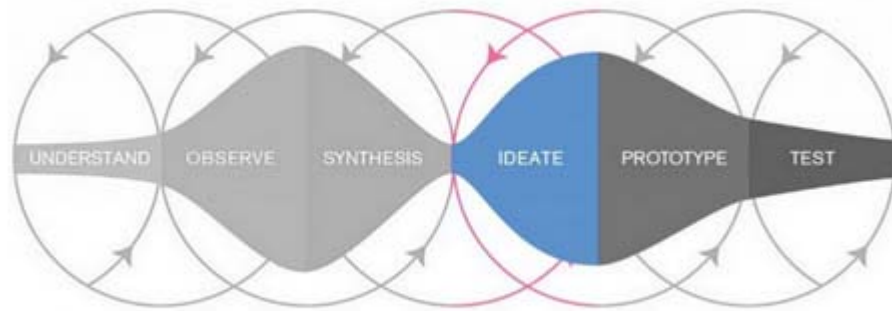
*Table 3 Problem Statements*

I started out with six problem statements that I then could narrow down into two HMW-questions. The first one is more targeted toward the learners of the course, while the second one is more targeted toward the teachers.

1. How might we facilitate feelings of connectedness among learners as well as avoid the notion of them feeling demotivated and bored, or insecure and exposed when posting in the forum?
2. How might we create a space that teachers can use time efficiently without feeling overwhelmed by their responsibilities?

### 5.3 Ideate Phase

During the ideation phase, the purpose is to widen the scope and try to think of as many possible solutions as possible. Building on the needs of the user personas, problem statements and HMW-questions, the designer needs to challenge themselves and try to develop a wide range of possible solutions. This can be visualised as the first stage of the second diamond in the double diamond method (Figure 13).



*Figure 13 Third stage of the Design Thinking process (Ideate) (Gerber 2018)*

According to Pressman (2019), brainstorming is a common and usable method to apply when attempting to generate ideas. The aim when using this method is to try to generate as many ideas as possible, without further thought or judgement. At this stage, no idea is bad, Pressman (2019) emphasizes instead the importance of evaluating and archiving every idea that is generated. He claims that even the most unlikely idea might trigger or lead to an exceptional idea.

During this stage I further investigated other forms of communication, besides – or in addition to, the discussion forum. It is important to keep in mind that this whole process is iterative, and each step of the process has been conducted on several occasions. With this said, the idea generation did not just happen on one single occasion, but rather continuously throughout the process.

The organisation I worked with already had a platform in place where the civic orientation course will be conducted. This platform is placed in a WordPress environment and this was therefore something I needed to accommodate to when developing the communication space. This due to the fact that the solutions need to be compatible and possible to conduct within a WordPress environment in the end. Some of the ideas I explored when attempting to incorporate the users' opinions and thoughts for the communication in the course were:

- Exploration of different types of communication; email, scheduled meetings with teacher, synchronous chat and live video meetings for participants.

- The ability for participants to personalise the website/profile.
- Investigation and evaluation of using a Learning Management System (LMS) plugin for the platform compatible with WordPress.
- Evaluation and comparison of different already existing forum plugins compatible with WordPress.
- Exploration of different layouts and functions in the forum.

Due to the limited time allocation for this thesis project, I decided to focus mainly on four aspects that could facilitate the communication and sense of community among the learners; a calendar for scheduling live video meetings, synchronous chat option, the possibility to ‘react’ to posts in the forum, and a facilitation of contacting the teacher.

How might we facilitate feelings of connectedness among learners as well as avoid the notion of them feeling demotivated and bored, or insecure and exposed when posting in the forum?

*Figure 14 Learner HMW Question*

How might we create a space that teachers can use time efficiently without feeling overwhelmed by their responsibilities?

*Figure 15 Teacher HMW Question*

As an attempt to solve the first HMW-question related to the learners, their connectedness and insecurities (Figure 14), I wanted to incorporate a calendar page where learners could schedule live video meetings with each other as well as the teacher. Both learners and teachers had during the empathise phase expressed a desire for live video meetings. This function was therefore added in order to facilitate a synchronous communication between both learners and the teacher. Another option that was added, was the ability to see other learners who were currently online, and instant message them. This option had also been raised by the participants during the empathise phase and was added in order to facilitate the sense of connectedness to the other learners as well as the possibility to ask questions and receive fast and personal replies. Adding on the chat function, I raised the idea of the possibility of a ‘chat room’ – meaning kind of a group chat with everyone who was currently online. This could further add to the sense of connectedness while also remove potential feelings of hesitation of contacting specific individuals.

One factor that was mentioned among all three user groups was the avoidance of very long replies in the forum. Several participants expressed that there would be a major risk of learners choosing not to read or engage in the forum if replies were too long. Instead, participants argued for shorter and faster replies, as well as the ability to ‘react’ to posts. By reacting to a post with

an emoticon, participants claimed that it could foster recognition and positive emotions in the author of the post, as it was clear that other learners engaged with their post. In regard to this, I attempted to incorporate some emoticons to choose between as a reaction to a post, quite similar to how most social media platforms are operating today. This also provides a solution to the first HMW-question in relation to making the forum more fun and engaging, as well as reducing feelings of insecurities and exposure.

Now turning to the second HMW-question, relating to how the teachers' use of the space can be made more time efficient (Figure 15). This will naturally be very affected by the pedagogical content of the course, but some aspects were incorporated in order to assist with this notion. For example, by creating a calendar page where the teacher can display what time slots they are available for meetings, it would be clear for the learners when they can meet, and unnecessary communication regarding scheduling could be avoided. This idea of virtual 'office hours' was generally embraced by both learners and teachers. Learners promoted it as a valuable opportunity to ask questions or make sure that they have understood everything correctly. Similarly, teachers stated that it could be beneficial in order to examine whether learners are keeping up and staying on track, although also raising concerns regarding their allocated time to the course.

Lastly, as an attempt to accommodate both learners and teachers, a feature to easily be able to contact the teacher was included in the design as well. Learners expressed that it would be beneficial if communication with the teacher was easy and flexible, and ideally if it could be conducted in different ways. Similar to this, Bolliger and Martin (2018) argued that it was beneficial for the learner-instructor interaction if several means of communication were provided, and learner satisfaction would thus increase. In relation to the teacher, this could be valuable in the sense that they can facilitate learner engagement by providing assistance and personal feedback. However, there are also some challenges related to this, which correlates with the need for clear guidelines from the organisation regarding the teacher's involvement in the course.

## 5.4 Prototype Phase

After several ideas and different features had been generated and somewhat evaluated in the ideation phase, the development of a prototype could begin. As continuously stated, the design process is iterative, and each phase can be conducted several times before the final prototype is developed. When conducting this thesis, only the first version of two prototypes have been developed and tested. Further developments, improvements and changes will need to be carried out before the forum can be implemented and used for real. In order to avoid spending too much time on a prototype and certain features that later will prove to be unsuccessful when

tested with the users, Pressman (2019) state that it is favourable to make quick and easy prototypes and not invest too much time and energy into them. It is better to make several simple prototypes and evaluate the ideas and features early on, make small improvements each time that eventually will lead to a final high-fidelity prototype that can be implemented as the final solution.

This particular project developed two prototypes in order to test different things. One basic forum was tested ‘in action’ with the class currently studying the civic orientation course (Figure 16). Not many design related or technical modifications were done to this prototype, as it aimed to test the way of communicating, level of clarity of instructions and interference of the teacher. A forum plugin was added to the existing platform and a thread called ‘READ THIS FIRST’ was added which contained instructions for the task of the test. Together with the teacher of the class and group leader of the project, we then defined two questions related to the theme of that week’s lesson which was then presented to the class. Further descriptions will be laid out in 5.5.1 (test with current students).





















Topic Title	Posts	Views
 <b>READ THIS FIRST</b> First post and replies    Last post by <a href="#">soplattformlogin</a> , 2 months ago 	1	178
 This week you are expected to write one post with ...	2 months ago	By <a href="#">soplattfo...</a>
 <b>What do people look for in a (couple) relationship?</b> First post and replies    Last post by <a href="#">Ayasma Mahmoud</a> , 2 weeks ago 	13	204
 In today's lesson we talked about relationships. I...	2 months ago	By <a href="#">soplattfo...</a>
 - Firstly, I think that when couple live together ...	3 weeks ago	By <a href="#">soplattfo...</a>
 1.For both partner money matters should be open. T...	3 weeks ago	By <a href="#">soplattfo...</a>
 Trush issue and spend the money wisely together, a...	3 weeks ago	By <a href="#">soplattfo...</a>
 Money can seem to be a major problem in marital li...	3 weeks ago	By <a href="#">soplattfo...</a>
 Thanks <a href="#">soplattfo...</a> for all the thoughts, trust is the ma...	3 weeks ago	By <a href="#">soplattfo...</a>
 Hey everyone, I think relationship is all about ta...	3 weeks ago	By <a href="#">soplattfo...</a>
 Hey everyone, I think relationship is all about ta...	3 weeks ago	By <a href="#">soplattfo...</a>
 Your point to love, trust and spoil each other wit...	3 weeks ago	By <a href="#">soplattfo...</a>
 First of all, I think communication is key, if the...	2 weeks ago	By <a href="#">soplattfo...</a>
 My think about relationship between family is giv...	2 weeks ago	By <a href="#">soplattfo...</a>
 Money is very important for survival. It does play...	2 weeks ago	By <a href="#">soplattfo...</a>
 Good pieces of advice!	2 weeks ago	By <a href="#">soplattfo...</a>
<a href="#">view all posts &gt;</a>		

Figure 16 Forum Tested in Class

The second prototype that was developed was more focused on the design and desirable functions of the forum. This was developed as a wireframe prototype through the design tool Figma (Figure 17) and attempted to solve the problem of interactivity, need for synchronous communication and facility of contacting the instructor. As the course platform is integrated in a WordPress environment, as previously mentioned, I used a forum plugin compatible with WordPress as the foundation for my own prototype.

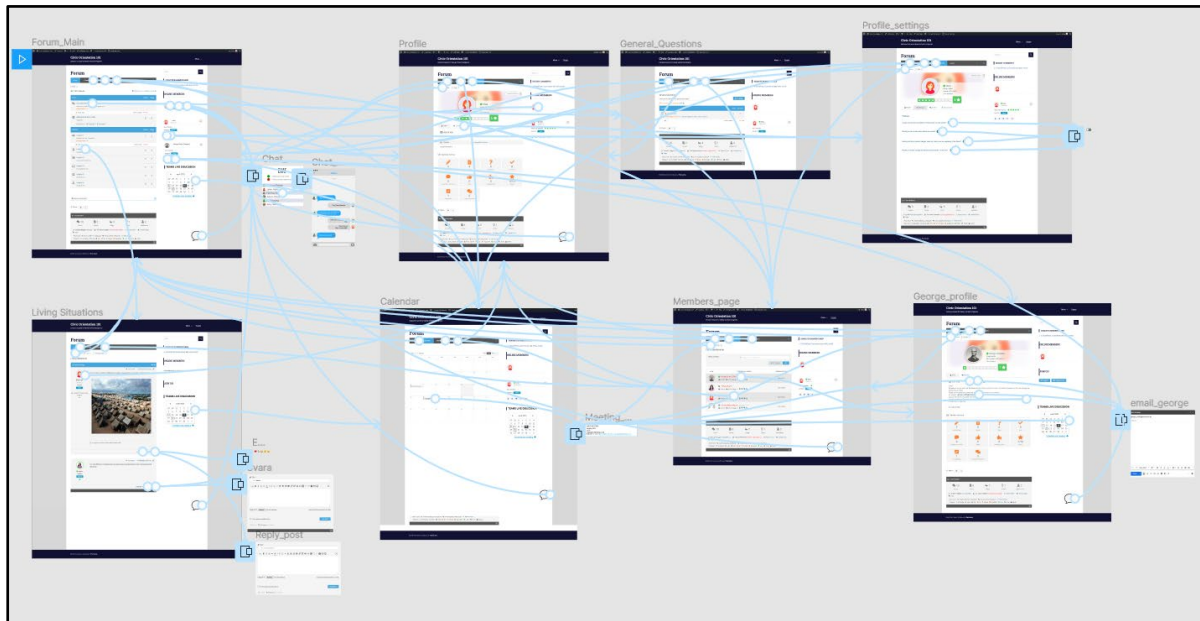


Figure 17 Overview of Prototype developed in Figma

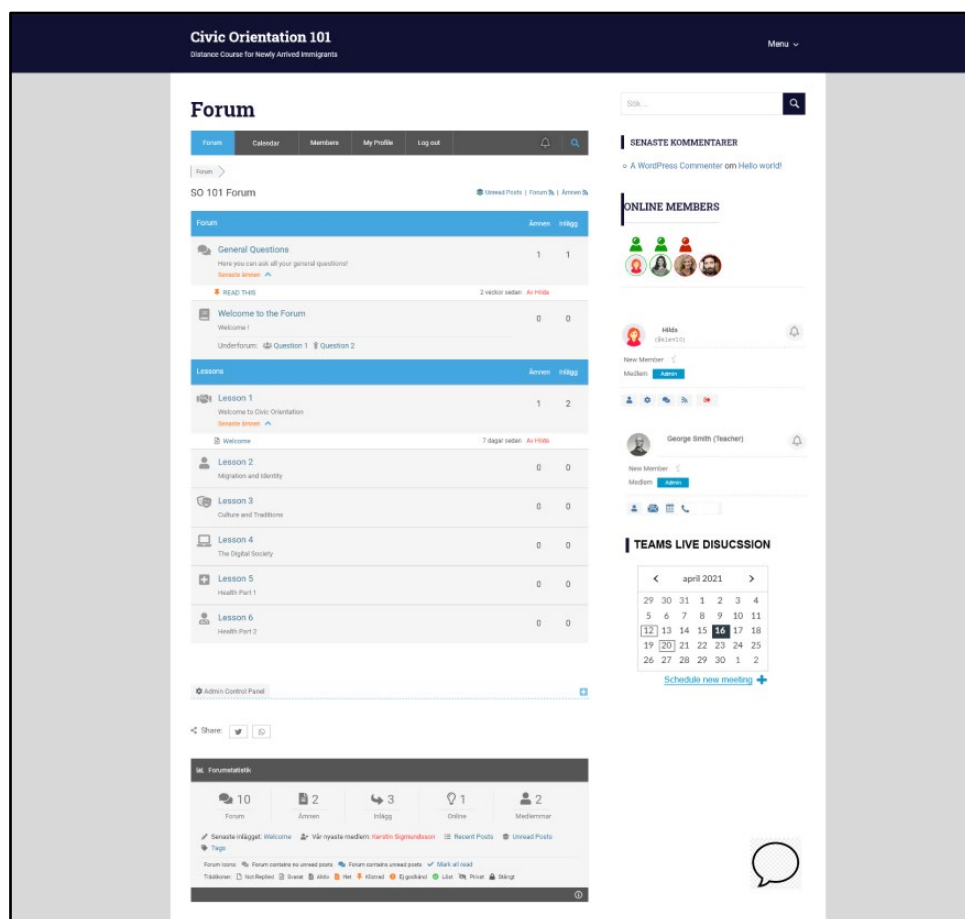


Figure 18 Overview of Forum webpage



Since several accounts from participants had been regarding a desire for synchronous discussion, I added a chat function and the ability to see who else was currently online. Furthermore, I included a calendar page where the idea is that students can schedule live meetings, either among themselves or with the teacher. Ideally this would be directly linked to for example Microsoft Teams, as well as possibly their personal calendars, so they would be able to schedule a meeting for everyone as well as see the details of the meetings in a personal device of their choice.



Figure 20 Chat List



Figure 19 Online Members

On the right hand side of the forum web page (see overview of page in Figure 18), a display of other online participants is visible (Figure 19). If the user clicks on either of their icons a chat box opens up at the bottom of the page (Figure 20). Here the user can choose

who they would like to talk to, and a conversation opens as an overlay of the chat. The green icons and rings around the students' avatars indicate that they are online and active, while the red indicate that they are online but prefers not to be disturbed.

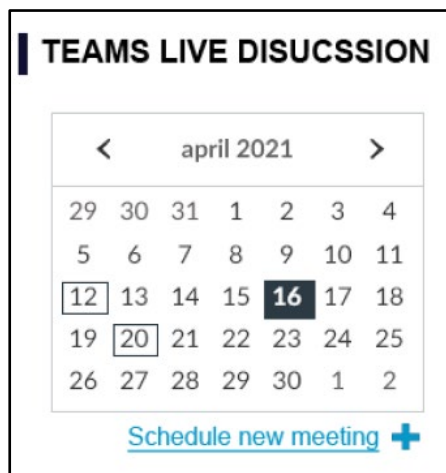


Figure 21 Small Calendar

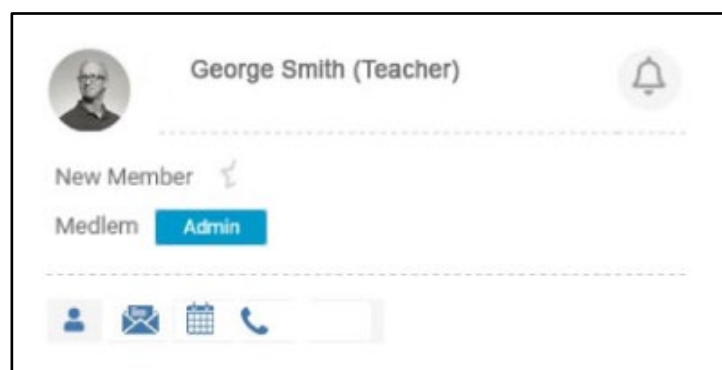


Figure 22 Small Teacher Profile

Another feature on the right hand side of the website is a small calendar (Figure 21). The idea is that it should clearly visualise when live meetings are scheduled as well as be easy for the user to schedule meetings themselves. When either a date in the calendar or the button 'Schedule new meeting' is clicked, the user is taken to a page with a larger calendar where more details about the upcoming meetings are visible.



As an attempt to accommodate to the learners' desire to easily be able to contact the teacher, I first added a small section also on the right hand side of the website, where the avatar and name of the teacher is visible (Figure 22). Here I also added a few icons which indicate different means of contacting him. The user can either go to his profile via the human-looking avatar, send him an email, schedule a meeting in the calendar or find his telephone number. The idea is that if the email icon is clicked, an empty email draft will pop up and the student can write the email right there on the site.

If the learner chooses to visit the teacher's profile, they can gain a bit more information about him by reading this biography (Figure 23). On this page there are several ways the student can choose to contact him as well, either via the icons above his biography, or by clicking the email or calendar link that are visible in the text of the biography. This further facilitates the possibilities for the teacher to clearly state the guidelines and requirements of the learners. The information in the biography can assist both the teacher and the learners to use the space in a time-efficient way.

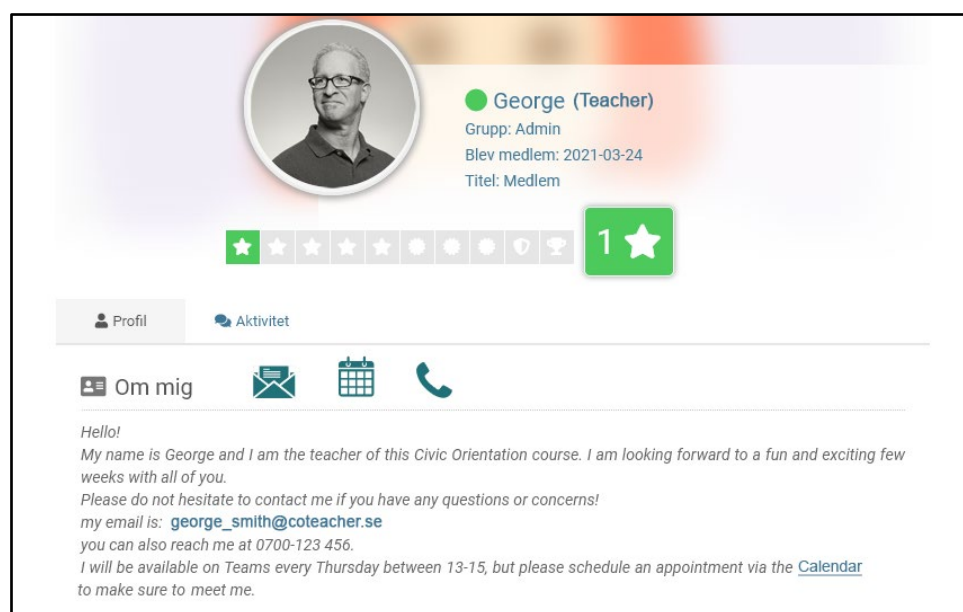


Figure 23 Large Teacher Profile

Besides the promotion of interactivity through synchronous communication in the forum, I attempted to add the feature of 'reactions' to forum posts (Figure 24). This was done as an attempt to make the forum more similar to a social media environment where the ability to show a reaction through emoticons today is very common.

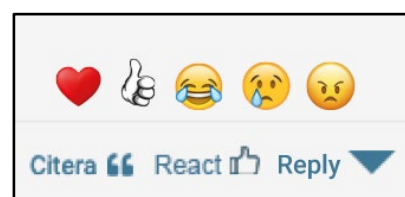


Figure 24 Forum Reactions

## 5.5 Test Phase

### 5.5.1 Test with current students

When the first drafts of the prototypes were developed, they could be tested with the actual users. As previously mentioned, it is crucial to test and refine the prototypes often in order to assure that the design and implementation will be in accordance with the users' needs and expectations. By testing and evaluating with the users, the designer can avoid implementing their own biases and possibly features that simply do not work or make sense for the users (Pressman, 2019).

Since two prototypes were developed, two different types of tests were also conducted. The participants that tested the communication within the forum did so independently for the duration of one week. The learners were asked to visit the forum, post a reply to the questions and reply to one other student's comment. Two times during the week the teacher sent out a reminder via email. The learners were also made aware that the purpose of the test was not to evaluate the content of what they discussed, but rather how they discussed and communicated. After the test period a questionnaire (Appendix C) was sent out to the participants where they were asked to evaluate their experience.

During the week, eight learners contributed to the discussion in the forum. All added a reply to the initial question and three learners replied to another student. After the completion of the test, six participants also filled out the questionnaire.

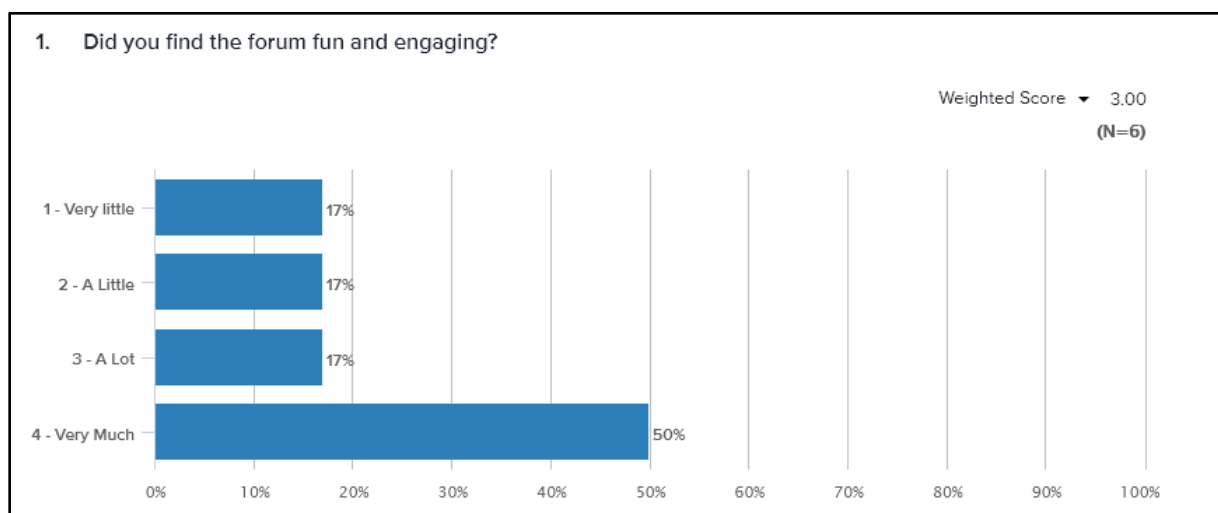


Figure 25 Learners' perception of the level of engagement in the forum

As shown in Figure 25, four out of six people answered 'a lot' or 'very much' on the question if they found the forum to be fun and engaging. This was a rather surprising result, as this test

was just conducted for one week, and it was not a discussion form these learners were used to partake in. In addition, no particular features had been added in order to enhance the user experience. It is however possible that as it is not a form of discussion these learners are used to, it was simply the novelty of the task, or way of discussing the course content, that contributed to the engagement and enjoyment of using the forum. Moreover, two people did not find the forum fun and engaging, and considering the small sample of respondents, they still constitute one third of all respondents.

As mentioned in the Methods section, one of the limitations of using a questionnaire is the inability to make sure that the respondents have understood the questions correctly. An example of this became evident in this second questionnaire. In two of the questions, first three

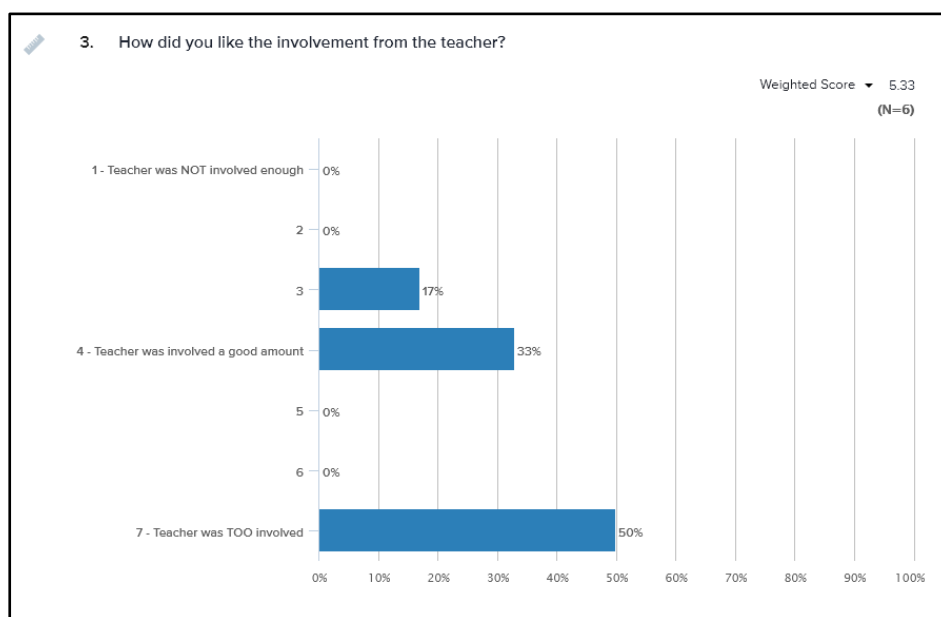


Figure 27 Learners' perception of teacher involvement in forum

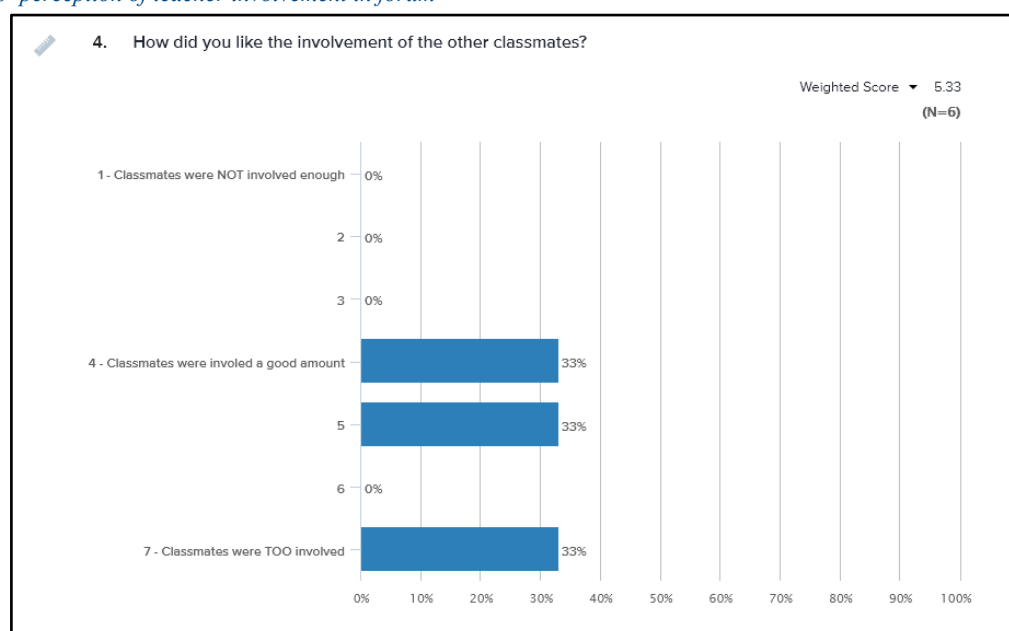


Figure 26 Learners' perception of classmates' involvement in forum

(Figure 26) and then two (Figure 27) respondents answered that the teacher and then the classmates had been *too* involved in the forum. This might of course be completely accurate and true, but considering the fact that the teacher did not post even once in the forum (and was thus only involved via the reminder emails), and each student on average posted one reply each, I contemplate whether the questions were too unclear. If conducted again, I would attempt to change the questions in order to avoid this type of confusion.

On another note, 100% percent of the respondents stated that instructions of the task in the forum was clear enough and the comments on what they particularly liked or disliked with the forum were predominantly positive. The respondents were also asked how they thought the forum could be improved. Here three people stated that the use of image and/or video would be beneficial and one stated that more engagement from others would improve the forum.

### **5.5.2 Test with target group students**

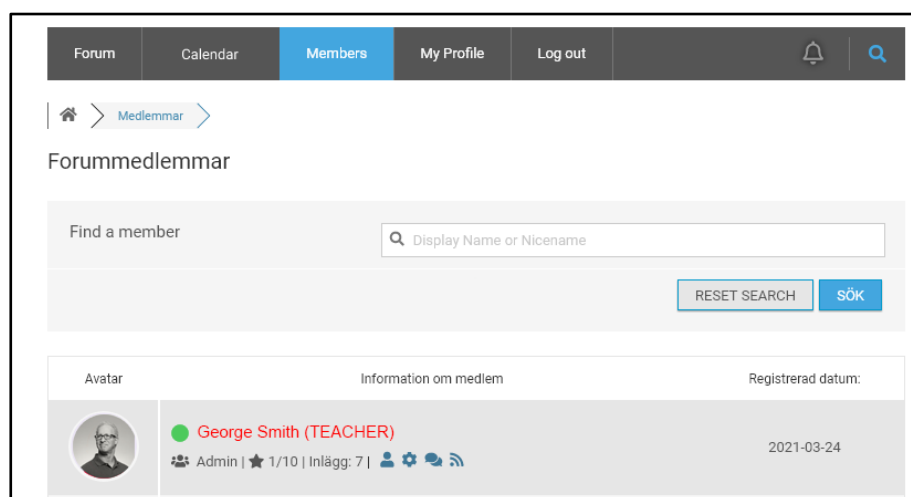
The testing of the prototype developed in Figma was conducted with Think-aloud usability testing. As briefly stated in the Methods section, think-aloud tests let the user interact with the prototype while the designer is observing and taking notes (Lewrick et al., 2020). The user normally receives certain tasks that needs to be conducted and ideally the user will explain their thought process out loud while conducting the tasks. By explaining their interpretations and thoughts, the designer can identify what aspects need improvements. The think-aloud tests in this project were conducted by the three international students that had previously been interviewed, and they were carried out digitally via the video conferencing program Zoom. The users had been given a link to the prototype, and they then shared their screen while interacting with the prototype. No recordings were conducted but notes were taken by hand related to the user experience expressed by the users.

Since this prototype was still in its early stages, several aspects were pointed out that could be changed, improved or simply removed. Firstly, there was a confusion around the ‘online members’ that appeared red. First impression seemed to be that they simply were offline, but when realised that they were actually online but did not want to be disturbed, questions were raised regarding why they appeared in the list at all. It was argued that learners might become hesitant to contact those who appear red, and therefore it was questioned why they were displayed there to begin with. When asked about the possibility of having a ‘chat room’ where one could talk to everyone that were online simultaneously, the response was predominately positive. Additionally, the ability to create group chats were argued for as it could be beneficial for group assignments.

Secondly, the users seemed to respond well to the features of contacting the teacher. The icons were clear and well understood and one user especially liked the feature of the calendar icon and the ability to schedule an individual meeting with them. It was discussed that it would be

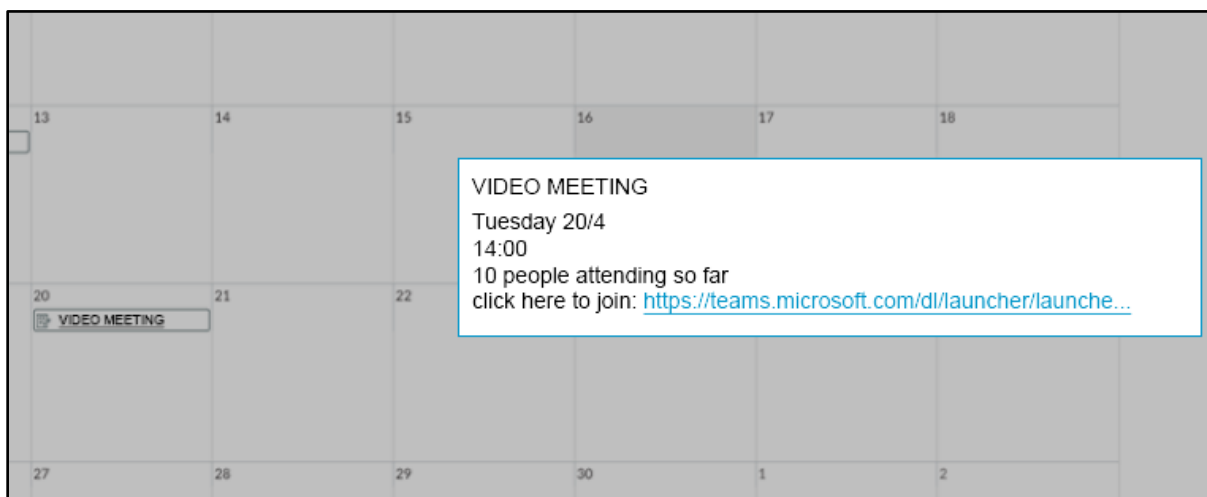
positive if there would be visible time slots in the calendar added by the teacher, that the learners could book and thus be sure that the teacher would be available those times.

Additionally, it was well received that there were different ways to reach the profile of the teacher. Besides using the small profile that I added on the right hand side of the website (Figure 22), the learner could also choose to go via the menu and click the button saying ‘members’. By clicking that button, a list with all members of the course is shown, where the teacher is displayed on top (Figure 28). One user spontaneously chose this route when given the task to contact the teacher, which could point to the importance of providing several options and routes of contacting the teacher. When displayed in the member list, some information and icons are visible to the right of the avatar of the teacher. At the time of this prototype, these were standard icons from the original forum plugin, but it was discussed that it might be beneficial if these icons were changed to the icons of means of contacting the teacher instead. This would allow yet another route for the learner to reach their teacher.



*Figure 28 Member List*

Another feature that was tested was the ability to view the details of a scheduled video meeting with other participants. The general idea of this feature was well received although there are several aspects of the feature that still needs development. The users requested for example a button or a way to register, to mark that they would be attending the meeting. Confusion arose regarding how one would know that there are 10 people attending already, when there was no clear possibility to register to the meeting (Figure 29). Another idea that was noted was the possibility to sync the calendar with the user’s own calendar, so the user then could see the scheduled meeting in their own personal calendar without having to log into the platform. This could also allow for notifications and automated reminders for the upcoming meeting.



*Figure 29 Video Meeting details*

## 5.6 Further Evaluations

Follow-up interview questions (Appendix F, Appendix G) were sent out to three teachers and the two current learners who had previously participated in interviews. One teacher was interviewed via Microsoft Teams, one teacher answered via email and one teacher did not reply. Both learners answered via email. The questions were sent out in order to evaluate some ideas that had come up during the process.

The teachers were asked three questions, regarding their thoughts of length of forum posts, the possibility of the teacher having a set time each week that learners could schedule for individual meetings, and the possibility for learners to schedule video meetings among themselves. While both teachers who answered were positive to the notion of shorter rather than longer forum posts, one teacher also raised some concerns regarding the fast and short type of interaction, which is rather prevalent on social media platforms. The teacher claimed that, similar to Falloon (2011), the learners might not have enough time to reflect and evaluate their replies before posting them in the forum. Even though the teacher did not request a very long and heavy text based forum, they expressed a concern of discussions lacking in deeper knowledge and reflections. This is a valid concern, and important to take into consideration when designing the forum. It can also be linked back to the importance of establishing clear expectations and rules regarding how to engage and communicate in the course.

Regarding the virtual office hours where learners could schedule individual meetings, both teachers were again positive to the concept. One teacher expressed however that it requires clear guidelines from the organisational side to establish these certain times and assure that they are implemented and possible logistically. While they claimed that it is a desirable option and might be very useful for both the learner and teacher, it is crucial that they are planned and organised properly in order to be conducted in a useful way. The other teacher was also initially

positive to the idea, but raised concerns regarding the lack of flexibility for the learners. Similar to what Kurucay and Inan (2017) mentioned, the teacher expressed that learners might choose to partake in a distance course due to the flexibility it provides, and this type of solution might counteract that.

Lastly, the teachers had varied comments regarding the possibility for learners to schedule and partake in video meetings themselves. One of them expressed that it might be difficult for the learners to schedule and organise this among themselves, and it would be more beneficial to schedule a few meetings with the whole class and the teacher together (this option is incorporated in the larger project of developing the distance course, and will be conducted on a few occasions). The other teacher was rather positive to the idea and mentioned that it could be beneficial for the learners, especially if divided into smaller groups for collaborative assignments.

Moving on to the learners, they were asked what they thought about the possibility for instant messaging, the live video meetings with other participants, virtual office hours of the teacher, and incentives of virtual badges and stars when engaging in the forum. Both learners expressed that it would be positive with a chat function as it could foster learner engagement and promote positive communication as well as a sense of community between learners. Furthermore, both learners responded positively to the feature of video meetings, although one stated that it would be more beneficial if these meetings could be scheduled occasionally rather than on a regular basis. This option would be more flexible and thus suit more learners. The feature of virtual office hours of the teacher was also very welcomed as they stated it could foster the relationship between teacher and learner as well as assist the learner in their understanding of the course content.

## **6. Discussion**

Previous research has highlighted the rather high attrition rates in online distance courses (Kurucay & Inan, 2017), and scholars have argued that feelings of isolation or lack of connectivity to other participants of the course may affect the motivation and engagement of learners to continue their studies (Angelaki & Mavroidis, 2013; Caspi & Blau, 2008). This project has attempted to develop a communication space for a distance civic orientation course for newly arrived immigrants. The aim of the communication space was to facilitate the development of a sense of community and thus hopefully continuous learner engagement and satisfaction. This section will discuss some aspects that were highlighted during this project in relation to previous research. The importance of multimodal delivery of content, the desire as well as complexity of synchronous and asynchronous communication and lastly, the contradicting notions of accessibility versus clear requirements of the presence of the teacher will each in turn be reviewed and discussed in the following paragraphs.

From the data collected in this research it quickly became quite clear that both learners and teachers disapproved of a discussion forum consisting of very long and dense text replies. It was argued against in relation to time restrictions as well as the risk of it being very unexciting and unmotivating to partake in. Instead, the participants of this study repeatedly argued for an incorporation of different types of media and modalities in the forum. These results were similar to the findings of the study conducted by Schilling (2009), which indicated results of increased learner engagement when transitioning from a text based delivery of content to a multimodal delivery. However, while the demand for the content and communication to be multimodal with incorporation of audio, video and images, the participants of this study were on the contrary hesitant to communicate in a multimodal way themselves. When asked about the most preferred way of communicating in the forum, almost all participants claimed that written responses would be the best option.

One argument against recorded audio or video replies was the risk of perceived difficulties to understand everyone's accents. This would be a valid concern especially in the English civic orientation course, as English rarely is the learners' first language, but rather second or third. Other concerns regarding recorded replies in the forum were related to feeling exposed when recording oneself, or the risk of it being too tedious to listen to very long audio or video files from other learners. Similarly, Falloon (2011) reported that some learners felt discouraged to engage in the discussion when their replies were permanent on the platform for everyone to see. This was also mentioned by participants in this study, with increased emphasis if they were to be required to record themselves with voice and/or image. This is an interesting aspect that most likely would benefit from being investigated further in future developments.

One dilemma that has been highlighted during this research and which the design of the communication space has aimed to accommodate, is the aspect that many learners express a desire and importance of developing relationships with the other participants of the course, while also stating the risk of the forum being uninspiring and demotivating to participate in. Learners mention that the lack of engagement from other learners consequently will affect their own engagement and this is to some extent the core issue of what this project has aimed to influence. This is a common dilemma which also can be related back to previous research highlighting the challenges of active participation in distance studies. Castaño-Muñoz et al. (2018) stated for example that migrants might benefit from partaking in a more blended learning style in order for them to obtain an opportunity to build relationships and avoid feelings of isolation.

Besides offering engagements that are completely offline and face to face, there are other aspects that can be incorporated in order to promote the development of a sense of community among the learners. By recommending a multimodal delivery and use of content in the course, as well as incorporating new communication features aimed to foster and facilitate communication among the learners, the hope is that the establishment of a sense of community



could be aided, and thus hopefully a continuous engagement in the course. However, there may also be learners who are uninterested in establishing a sense of community, and these persons' desires naturally also need to be accommodated to. As introduced earlier by Meyer (2014), some learners might already be very occupied with other obligations and simply see no reason for establishing a strong sense of community in a distance course. This is important to take into consideration so as to avoid implementing actions for relationship building just for the sake of it. Even though almost all participants of this study expressed a desire for establishing a sense of community, one has to remember that the sample for this study was very small and not representative for all potential learners of a civic orientation course. The instructor will have an important role in this matter, as they can, by early in the course get to know the participants, decide what tasks and/or group activities that should be implemented and for what purpose, as an attempt to accommodate to everyone's needs.

On another note, many learners expressed a desire for synchronous communication with the other learners of the course. The participants argued that, if it is possible to send instant messages to other learners that were currently online, it could facilitate a sense of connectivity to others, as well as assist with concepts or questions one might have about the course. Additionally, the synchronous communication may remove the feelings of exposure and insecurities that some participants highlighted in regard to posting in the discussion forum. Similar as stated in Hrastinski (2008), due to the nature of the synchronous communication with fast replies and short messages, it may provide social support and create a higher sense of connectivity and engagement. Although, the synchronous communication is not without challenges. Some learners may feel stressed and anxious in a synchronous setting as there would not be enough time for them to reflect on their thoughts or arguments, which might lead to insecurities to fully engage in the communication (Falloon, 2011). Synchronous communication also negatively affects the flexibility that many learners may value in a distance course (Kurucay & Inan, 2017). This notion may be very prevalent in a distance civic orientation course, since the aim is to reach migrants who are unable to participate in the 'normal' civic orientation due to its inflexibility (Länsstyrelsen, Kalmar Län, 2020).

Additionally, with the focus of fast and short replies when communicating synchronously, the content of the discussions poses a risk of being rather shallow and less focused on deeper knowledge (Hrastinski, 2008). This was also noted by a teacher in this study, who raised concerns that learners may not fully reflect on, or think through, what they were posting in the forum if too much focus were to be put on short and fast replies. In this project, the plan is so far to only implement the synchronous communication as an option for informal communication, ask questions or get to know the other participants. While this may remove the risk of affecting the course related discussions in the forum, it is also very evident that clear requirements need to be established of how to communicate in the forum in order to assure high quality discussions.

Furthermore, clear expectations of both learners and teachers was an aspect highlighted as crucial by all participants in this study, and is also very evident in previous research. By early on stating what is expected and required from all participants in the course, learners are able to organise their time properly and feelings of anxiety or stress might be reduced (Angelaki & Mavroidis, 2013). One teacher in this study highlighted this in relation to the use of the forum. The teacher stressed the importance of implementing and promoting the use of the discussion forum from the beginning of the course, in order to establish it as a crucial part of the course. They claimed that by early establishing that the majority of the communication were to be conducted in the forum, it would promote engagement and become a natural part of the course. This view can further be supported by previous studies which argue that the promotion of early postings in a discussion forum is important as these early posts clearly set the tone and direction of the discussion (Meyer, 2014).

Related to the establishment of clear expectations is the importance of communicating the purpose of participating in the discussion forum. This was a factor especially noted by the teachers, who argued for the importance of developing this communication space thoughtfully and with purpose. They mentioned, besides the significance of establishing the use of the forum as early as possible, that it is crucial to also convey to the learners why they should participate in the discussions. Similar to this, Meyer (2014) states that unclear directions from the instructor is a common factor of why learners might use the tool in an unwanted way. According to Meyer (2014, p.82) “poor directions [regarding the purpose of online discussions] led to students mostly sharing their personal experiences rather than engaging in evidence-based reasoning”. This is undeniably important to investigate further before implementing the discussion forum in the future.

Lastly, during this study it was clear that learners requested a flexibility in regard to how and when they could reach the teacher. Interviewees expressed that it would be beneficial if contact with the teacher was easy as well as flexible and could be conducted when they needed. Similar to this, previous studies have also shown results of student satisfaction rates being higher if the instructor provided several means of contact (such as email, telephone or discussion forum) (Bolliger & Martin, 2018; Martin et al., 2018). However, although teachers also expressed a need for frequent communication with the learners, they repeatedly stressed that their involvement in the course needs to be clearly stated from an organisational level. All teachers expressed that clear regulations need to be in place regarding when and how they should engage in the distance course. As teachers most likely will have more responsibilities beyond the distance course, it is crucial that they are aware of how much time they can invest in engaging in communication with the learners of the course.

## 7. Conclusion

This section will conclude the findings of this research as well as provide answers to the three research questions identified in section 1.2 (Research questions). Following that, the limitations of this study as well as recommendations for further developments will be described.

### 7.1 Preferred Communication

In relation to the first research question (What type(s) of communication is (most) preferred when participating in a distance civic orientation course?), this project aims to answer, findings show that it is clear that the participants of this study preferred short, text based entries in the discussion forum, inclusion of different media to make the forum more interactive, and a variation of synchronous and asynchronous communication in general.

One of the most prevalent findings from this study regarding engagement in the forum, was the importance of interactivity and use of different media in the discussion forum. Learners and teachers alike argued against a solely text-based forum with vastly long and tedious forum entries. Instead, the incorporation of different media such as video, images and audio were argued for as a way to make the communication in the forum more fun and engaging. Similar findings were reported in Schilling's (2009) study which highlighted that utilising multiple modes in the delivery of a distance course were more effective for student engagement than a text-based delivery.

It is rather clear that it may be beneficial to include both synchronous and asynchronous communication in a distance civic orientation course. Findings from this study clearly indicates a desire for the ability to communicate synchronously, especially as a means to receive social support, or for developing relationships with the other participants of the course. This notion is supported by previous studies such as Hrastinski (2008) and Falloon (2011). However, asynchronous communication on the other hand, may be more beneficial regarding discussions of course content. The asynchronous communication allows the learners to reflect and develop a deeper conceptual knowledge which often is preferred when conducting a discussion of course content (Garrison et al., 2000; Hrastinski, 2008). Furthermore, this type of communication allows for the full flexibility and personal autonomy which is often sought after when choosing to partake in a distance course (Kurucay & Inan, 2017).

### 7.2 Beneficial Features of Communication Space

Moving on from the first research question, the second question of this study (What features are important to include when developing a communication space in a distance course in order

to encourage learners' engagement in the course?), was more focused on practical design features of the communication space that could affect the engagement in the course.

Some of the attempts to accommodate to the desired modes of communicating in the course included tentative implementations of instant messaging, ability to schedule live video meetings with both the instructor as well as other participants, a facilitation of ways to contact the teacher and the ability to 'react' to posts in the forum. The instant messaging and video meetings attempted to assist the need for synchronous communication, which has been proven to be beneficial especially regarding social support and enhancing of a group identity or sense of community (Hrastinski, 2008; Falloon, 2011). An ability to easily contact the teacher, ideally with a range of different ways of contact (email, video meeting, telephone) was requested from the learners as a way to establish a relationship with the teacher as well as provide the assurance that the learner has understood everything correctly, or is keeping up with the course. Additionally, this was also argued in previous studies to be a beneficial feature when attempting to enhance learners' engagement and motivation to continue their online studies (Bolliger & Martin, 2018; Martin et al., 2018). However, teachers in this study also raised concerns regarding a potential lack of clear requirements regarding their involvement in the distance course. They were continuously emphasising the importance of clear guidelines from the organisation regarding how much time and effort they will have allocated to conduct the course.

### 7.3 Engagement and Sense of Community

Now turning to the third and last research question, (What aspects do learners consider important in a communication space in relation to support of the sense of community in the course?), which aimed to investigate how the participants expressed their desire for developing a sense of community as well as how the design of the communication space could facilitate that development.

Generally, it was quite evident from the results of this study that it would be important for the participants to get to know the other learners of the potential distance civic orientation course. It was argued that it would enhance the personal engagement if one had established some kind of relationship with the other participants of the course. This notion is in accordance with previous studies that have argued that student engagement and active participation can be enhanced with an established sense of community among the learners (e.g., Angelaki & Mavroidis, 2014; Caspi & Blau, 2008; Hrastinski, 2008). This may be even more evident in this kind of setting where learners of the course are newly arrived immigrants who might benefit further from establishing a community in an otherwise new society.

Additionally, one factor that was highlighted on several occasions by both learners and teachers in this study was the importance of clearly stated rules and requirements. This is also an evident

aspect from previous studies such as Martin et al. (2018), where it is argued that student satisfaction and course success rates may be positively affected by clearly stated requirements – of both learners and teachers. Learners argued for this aspect in order to avoid feeling confused and uncertain of their responsibilities in the course, as well as being able to organise their time and studies accordingly. Teachers on the other hand, emphasised this aspect in order to early on establish the discussion forum as a natural part of the course, as well as assuring that all learners are aware of what is required of them. By early on determining clear rules and requirements and displaying these to the learners, as well as promoting informal communication among the learners, engagement and sense of community may be positively affected as learners are aware of what is required of them and could thus avoid potential feelings of anxiety and uncertainty (Angelaki & Mavroidis, 2013; Bolliger & Martin, 2018).

To summarise, this project has aimed to develop a communication space that, by interpreting and developing the needs expressed by the users, attempts to support the development of a sense of community in a distance civic orientation course. The hope is that this would consequently foster continuous engagement and active participation in the course. However, the content as well as delivery of the course is naturally a major influencing factor regarding fostering learner engagement. This project has developed an initial prototype for the communication space of the new civic orientation course, but has had no influence over the pedagogical content of the course. This is something that will need to be further explored and developed in relation to the communication space, in order to fully investigate the effects of the sense of community and learner engagement.

## 7.4 Limitations

There are a few limitations affecting this study. Firstly, as the new distance course itself was in its planning stage during this research project, no actual participants of the new course could be asked to participate in the development of the communication space. Instead, participants of civic orientation courses that are currently running were interviewed and surveyed, as well as international students who would fit the target group for the new course. This is a limitation in the sense that the target group of the new distance course could not be represented to full extent.

Secondly, the sample of this study is very small which consequently is making the results very difficult to draw any generalisations from. However, the data collected was predominately qualitative, and according to Corbetta (2003) it is impossible to make generalisations out of qualitative data as the sample by nature is quite small. Regardless, steps were taken in order to make the participants of this study as representative as possible – current learners were included as they were participating in a civic orientation course during this time and had knowledge about the course content. International students were included as representatives of future learners who fit the target group qualifications, and teachers were included as they will also be

predominant users of the communication space in the civic orientation course. However, this research would benefit from being conducted further, with a larger sample size in order to develop solutions as representative and useful as possible for all participants of the civic orientation courses.

Thirdly, this project was restricted to a time span of four months which naturally has implications on the scope and size of the design. Due to deadlines, this project could not design and develop a large number of aspects, but rather focus on a few changes that were deemed important. Additionally, design projects are usually conducted by an interdisciplinary team, where many ideas and thoughts can be developed and evaluated among the team members (Lewrick et al., 2020). I did not have the support of a team, but I attempted to include the end-users as much as possible in order to keep the design tailored to their needs.

Lastly, it was difficult to test the forum as meticulously as desired due to time restrictions as well as participants being very busy and not having much time to engage in the project. Further improvements to the prototypes need to be developed and tested several more times before the communication space can be implemented in the actual civic orientation course.

## 7.5 Future developments

In the future development of this forum, there is a need to consider different accessibility requirements in order to make the design more inclusive. Some considerations and discussions around accessibility were present during this study but due to time restrictions they were not included in the development of the prototype. For example, a teacher mentioned the function of having text read out loud, which would benefit for example those who are visually impaired or dyslexic. Another point that was raised from a participant, was the importance to carefully evaluate the use of different colours and fonts, as an attempt to accommodate to those who suffer from colour-blindness. These are only two points that were raised during this project, but more time and effort should be dedicated to accessibility moving forward, in order to make the design as inclusive as possible.

Additionally, as mentioned in the conclusion, this project has investigated how the communication space could be developed in order to support the development of a sense of community. However, the delivery as well as pedagogical content of the course certainly plays a crucial role in regard to learner engagement. Participants expressed that a variation of course content as well as the use of different media in the forum could support their engagement in the course. Consequently, to continue develop this communication space and its possible effects on the development of the sense of community and learner engagement, it is crucial to also incorporate the pedagogical material in future prototypes.

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## **Appendix A: Invitation to participate in study**

### **Development of Communication Forum in Distance Civic Orientation Course**

#### **Invitation to Participate**

My name is Hilda and I am currently studying my last semester of my Masters in IT and Learning at Gothenburg University. This spring I am doing a research project in collaboration with the Integration Centre, and more specifically, the course in civic orientation for newly arrived. The staff at the Integration Centre are developing a civic orientation course that is going to be fully online, and I am involved assisting with the communication space of the course. My aim and purpose with the project are to investigate how this communication tool can affect participants' engagement and active involvement in the course. In order to do this, I need help and input from those who are, and will be, studying the civic orientation course.

I am now reaching out to you who are taking part in the course, with the hope of getting some input and information from participants of the course. The plan is to conduct interviews with you and other participants, gain insight into what is important for you, and then try to develop a communication tool that would be suitable for as many people as possible. The idea of the project is to create an online discussion forum, let you test it and then report back to me and the team regarding what you thought of it. Besides partaking in interviews, you would be asked to both test the forum in your own time at home, as well as in a so-called 'think-aloud' session where I as a researcher will ask you specific questions regarding the design and functionality of the forum. There is also a possibility that you will be invited to attend a focus group with other participants as well as teachers later in the project, where you can have a friendly and open discussion about what aspects of the forum you like/don't like.

The project is planned to last until May, with interviews and testing to be completed in April. You are asked to participate during the whole project, but I am flexible and will try to accommodate interviews and testing-sessions depending on how much time you feel you can spare. If you choose to participate in this study, you will help with the development of a new civic orientation course that hopefully will help many newly arrived immigrants have an easy integration into the Swedish society.

Participation is completely voluntary, and you are free to withdraw from the research at any point, without any questions asked. The information collected will be stored locally on my computer, as well as on my personal cloud storage (which is password protected and only accessible to me), until I have received a passing grade on my thesis. After that, all information will be completely deleted in order to protect your privacy. It is important to mention that if

you choose to participate in this study, you will not be studied as an individual, but rather as a representative for the group of people who will take part in the distance course of civic orientation. It should also be mentioned that no names or identifiable attributes will be used when writing the thesis.

If you have any questions or concerns regarding the research project, or participation in general, feel free to contact either me, Hilda, [contact details]; my supervisor at the university Mikaela Åberg, [contact details]; my supervisor at the Integration Centre Jakob Sandahl, [contact details]; or my course coordinator at the university Markus Nivala, [contact details].

If you would like to participate in this project, and therefore help me with my investigation, as well as providing valuable input for the development of the distance course in civic orientation, please send me an email no later than 18/3. Your thoughts and ideas are very valuable and can help other people get a smooth and fun integration into the Swedish society.

## Appendix B: First Questionnaire

(Empathise, understand user needs)

\* 1. Have you participated in a distance course before?

- ☐ Yes  
☐ No

2.If yes, do you have any thoughts about how the communication was done in that course?

*Did the course have a forum? Was there anything you liked/disliked regarding communication in that course?*



Characters Remaining: 100

\* 3. Would it be important to you to get to know the other participants of the course?

- ☐ Yes  
☐ No  
☐ Not Sure (Please specify)

\* 4. What's most important for you in a forum? (You can choose more than one option)

- ☐ Easy to navigate  
☐ Fast replies from teacher  
☐ Fast replies from other participants  
☐ Getting a sense of community  
☐ Relevant discussion topics  
☐ Other (Please specify)

\* 5. In a distance based course, would you prefer more close and frequent contact with other participants and teacher, or more self-studies in your own time?

More contact More Self-studies

Clear

1 2 3 4 5

- \* 6. What would be most difficult for you regarding engaging in an online forum?  
*For example time restrictions, language, lack of technical skills etc. Please explain.*

Characters Remaining: 100

- \* 7. How could those difficulties be avoided/assisted?  
*Clearly stated expectations, guide for how to use forum etc. Please explain.*

Characters Remaining: 100

- \* 8. What type of forum replies would suit you best? (You can choose more than one option)

- ☐ Written (type your answer in text)
- ☐ Audio (record your answer with voice only)
- ☐ Video (record your answer with voice and image)
- ☐ All of them/Do not have a preference
- ☐ Other (Please specify)

- \* 9. Is there anything you would feel uncomfortable with regarding the forum or other type of communication?  
*Could be discussing in a big group, discussion of certain topics etc.?*

Characters Remaining: 100

- \* 10. Do you think a forum could assist you with your engagement in the course? Please explain why/why not.

Characters Remaining: 100

## Appendix C: Second Questionnaire

*(Evaluation of test of forum)*

### \* Required Information

#### \* 1. Did you find the forum fun and engaging?

Very little Very Much

1 2 3 4 [Clear](#)

#### \* 2. Was there anything in particular you liked/disliked with the forum?

Characters Remaining: 300

#### \* 3. How did you like the involvement from the teacher?

Teacher was NOT involved enough Teacher was involved a good amount Teacher was TOO involved

1 2 3 4 5 6 7 [Clear](#)

#### \* 4. How did you like the involvement of the other classmates?

Classmates were NOT involved enough Classmates were involved a good amount Classmates were TOO involved

1 2 3 4 5 6 7 [Clear](#)

#### \* 5. Did you find the instructions of the task to be clear enough?

- ☐ Yes
- ☐ No
- ☐ Other (Please specify)

\* 6. Would you have liked to receive an email when one of your classmates and/or the teacher wrote something in the forum?

- ☐ Yes, both the classmates and the teacher
- ☐ Yes, but only when a classmate wrote something
- ☐ Yes, but only when the teacher wrote something
- ☐ No
- ☐ Other (Please specify)

\* 7. How do you think the forum could be improved?

*Could be regarding the instructions, involvement of teacher, type of discussion, more use of images/videos etc.*

Characters Remaining: 300



## **Appendix D: Interview questions for students (Current and Target group)**

1. Do you have any previous experience of distance education?
  - a. What was good/bad with previous courses? Did they have forums, good/bad there?
2. How important is the sense of community for you?
3. Would you prefer more close and frequent contact with other participants and teacher, or prefer more self-studies in your own time?
4. What is most important for you in a forum?
  - a. Easy to find, navigate
  - b. Fast replies (participants vs moderator)
  - c. Sense of community
  - d. Other?
5. What kind of feedback would you prefer?
6. What would be most difficult for you regarding engaging in an online forum?
  - a. How could that be avoided/assisted?
7. What types of forum entries would suit you best?
8. Is there any other type of communication that you would like/prefer?
9. Is there anything you would feel uncomfortable with regarding the forum or other type of communication?
10. Do you believe the forum could assist you with your engagement in the course?
  - a. Why, how?
  - b. Create sense of community(?) how?

## Appendix E: Interview questions for teachers

1. Vad skulle vara mest viktigt för dig som samhällsvägledare i ett online forum i en distanskurs? (*What would be most important for you regarding a forum in a distance course?*)
  - a. Kan man underlätta detta på något sätt? (*Could this somehow be facilitated?*)
2. Vad tror du är mest viktigt för deltagarna gällande ett sådant här forum? (*What do you think is most important for the learners regarding a forum?*)
3. Hur viktigt tror du det är att skapa en känsla av samhörighet (community) mellan deltagare och/eller samhällsvägledare? (*How important do you think it is to create a sense of community with and/or between the participants and instructor?*)
  - a. Hur viktigt är det för dig och hur viktigt är det för deltagarna (*How important is it for you/for the participants*)
4. Skulle du föredra att ha mycket och tät kontakt med deltagarna, eller låta dem göra mer självstudier och återkoppla mer sällan? (*Would you prefer to have close and frequent contact with the participants or let them study more independently?*)
5. Finns det något som skulle göra det svårt för dig att vara engagerad/aktiv i forumet? (*Is there anything that would hinder you from being active/engaged in the forum?*)
  - a. Hur skulle detta kunna undvikas? (*How could this be avoided?*)
6. Vilken typ av foruminlägg skulle du föredra? (*What kind of forum entries would you prefer?*)
7. Vilken typ av uppgifter/diskussioner skulle du föredra? (*What types of assignments/discussions would you prefer?*)
8. Tror du ett sådant här forum skulle underlätta deltagarnas engagemang i kursen? (*Do you think a forum could promote participants' engagement in the course?*)
  - a. Varför/varför inte? Hur? (*Why/why not? How?*)
9. Finns det någon annan typ av kommunikation du skulle föredra/vilja ha? (*Is there any other type of communication that you would prefer/like to include?*)

## Appendix F: Follow-up interviews (Current students)

1. What do you think of the possibility to be able to chat with other participants who are online on the platform? *Similar to instant messages on for example facebook or whatsapp, but on the course platform.*
2. What do you think of the possibility to schedule live video meetings with other participants of the course?
3. Do you think the teacher should have a set time each week that students can book and then meet the teacher in a video meeting?
4. Would you be interested in receiving for example stars or badges for your participation in the forum? *(e.g. The more you post, the more stars you receive)*

## Appendix G: Follow-up interviews (Teachers)

1. Flera deltagare har uttryckt att det kan bli för tråkigt och tungt ifall man måste läsa och skriva väldigt mycket och långa inlägg i forumet, och efterfrågar i stället ett upplägg med korta, snabba svar – lite liknande hur det fungerar på sociala medier.

- Har du några funderingar kring detta? För/-nackdelar, för dig som lärare eller allmänt för deltagarna?

*(Several participants have expressed a desire for short forum posts, similar to social media, what are your thoughts around this? Pros/cons for you as a teacher or generally for the participants?)*

2. Vad tror du om att läraren i kursen har en bestämd tid varje vecka som deltagare kan boka för att då kunna ha individuella videomöten med läraren?

*(What are your thoughts around having a set time each week that the participants can book in order to have an individual meeting with the teacher?)*

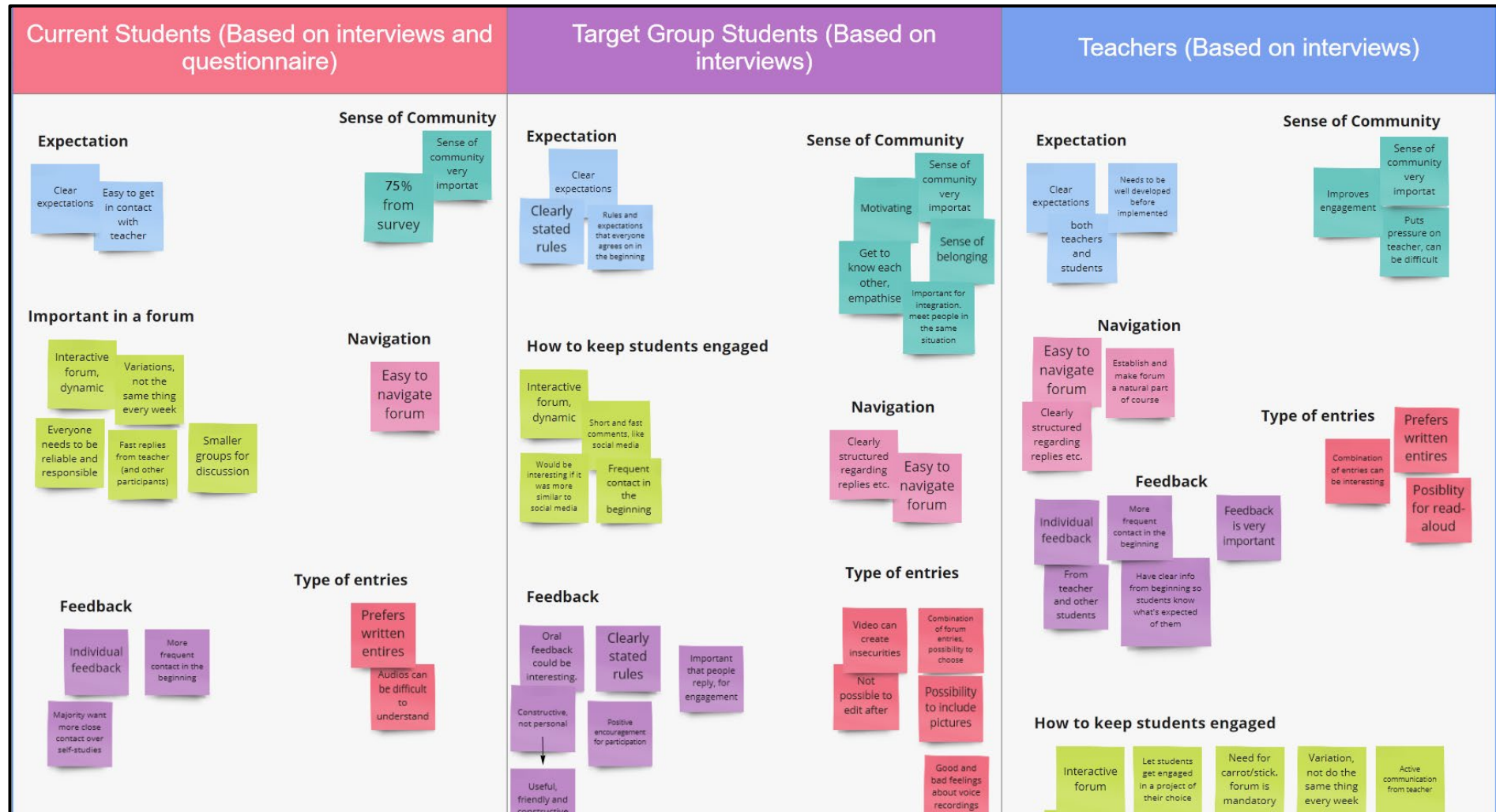
3. Vad tror du om möjligheten att deltagarna själva skulle kunna boka in videomöten där de kan mötas och ha live-diskussioner? (Antingen skulle detta också kunna vara en bestämd tid varje vecka där de som kan och vill kan delta, eller att de själva kan boka in tider som passar dem)

*Denna typ av diskussion är kanske svår att ha **istället** för en forumdiskussion, då det blir svårt för läraren att bedöma hur/om deltagarna har deltagit. Har du några funderingar kring detta? Går det att lösa/undvika, kanske genom inspelning av diskussionerna?*

*(What do you think of the possibility for participants themselves to book video meetings where they can meet and discuss synchronously? Could be a set time each week or the possibility for them to schedule it whenever it suits them.*

*This might be difficult to have **instead** of a forum discussion – difficult for a teacher to assess. Thoughts around this?)*

## Appendix H: Collected Data



## Current Students (Based on interviews and questionnaire)

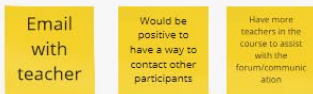
Majority want more close contact over self-studies

to understand

### Difficulties



### Other Ideas/type of communication



## Target Group Students (Based on interviews)

Constructive, not personal

Positive encouragement for participation

engagement

possible to edit after

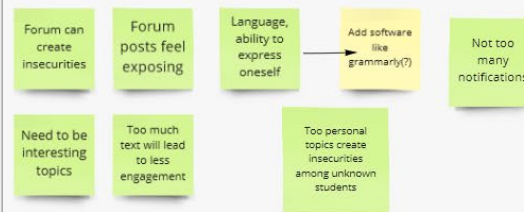
to include pictures

Useful, friendly and constructive

Good and bad feelings about voice recordings

Should not be too long

### Difficulties

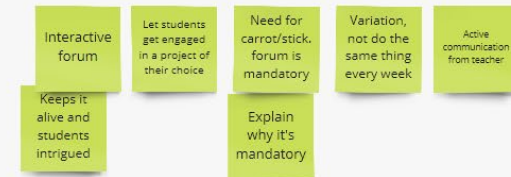


### Other Ideas/type of communication



## Teachers (Based on interviews)

### How to keep students engaged



### Difficulties



### Other Ideas/type of communication

